



February 2011
Vendor Component Libraries - RF Passive SMT Library

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Intel@ Math Kernel Library, <http://www.intel.com/software/products/mkl>

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About RF Passive SMT Library

SMT Vendor components use either fixed artwork or AEL macro driven artwork. Fixed artworks are located in the installation directory under *ComponentLibs/packages* . Most of these fixed artworks are customized to a particular vendor. In addition, some of these fixed artworks can be used as artwork substitution for designs. For more information, refer to *Artwork* (usrguide).

The RF Passive SMT Library consists of discrete-value linear models representing 982 parts from 23 manufacturers. The models were extracted from data provided by these manufacturers. For detailed information on these libraries, refer to these sections:

- *SMT Capacitors* (vcrfs)
- *SMT Inductors* (vcrfs)
- *SMT Resistors* (vcrfs)

 **Note**
The libraries are binary files named *SMT_CapacitorLibrary.library*, *SMT_InductorLibrary.library*, and *SMT_ResistorLibrary.library*, which can be found in *\$HPEESOF_DIR/ComponentLibs/models*.

SMT Capacitors

The SMT Capacitor Library consists of discrete-value linear models representing 682 surface mount capacitors from 8 manufacturers. The models were extracted from data provided by these manufacturers.

Note
The library itself is a binary file named *SMT_CapacitorLibrary.library* which can be found in *\$HPEESOF_DIR/ComponentLibs/models*.

The SMT capacitor library groups available for selection from the Schematic and Layout windows are:

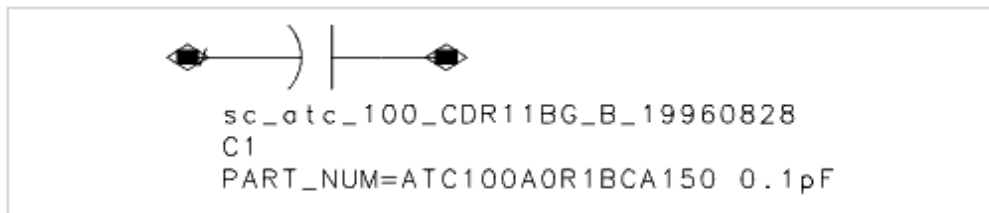
- [ATC 100 Series SMT Capacitors](#)
- [ATC 180 Series SMT Capacitors](#)
- [ATC 700 Series SMT Capacitors](#)
- [AVX AQ Series SMT Capacitors](#)
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- [Kemet X7R Series SMT Capacitors](#)
- [Microelectronics MPR1 Series SMT Capacitors](#)
- [Microelectronics MPR3 Series SMT Capacitors](#)
- [Microelectronics MPR5 Series SMT Capacitors](#)
- [Microelectronics MPR7 Series SMT Capacitors](#)
- [muRata Monolithic Ceramic SMT Capacitors](#)
- [Philips Measurement-Based CMC Series SMT Capacitors](#)
- [Sprague 293D Series SMT Capacitors](#)
- [Sprague 592D Series SMT Capacitors](#)
- [Sprague 595D Series SMT Capacitors](#)

Schematic Design

This section describes the schematic design of the SMT capacitor library components and specifies the simulation models that are incorporated in the design.

[SMT Capacitor Schematic Component Example](#) shows how an SMT capacitor component appears when placed into the Schematic design window. The annotation consists of the component name, the default component ID prefix (in this case, C), the component parameter, PART_NUM, the SMT_Pad, and OFFSET parameters which are used for layout generation only.

To perform layout generation based on required footprint parameters, it is important to include an SMT_Pad data component in the schematic and specify the footprint parameters in that instance of SMT_Pad. Otherwise, default dimensions of SMT_Pad data component are used during layout generation.



SMT Capacitor Schematic Component Example

Each capacitor library component represents a series of discrete parts from a single manufacturer with a common case style and capacitance tolerance (wherever available). The PART_NUM parameter is used to identify a specific vendor discrete part in the selected component. In the Component Parameter dialog box, the Parameter Entry Mode option button for the PART_NUM parameter contains each vendor discrete part attributable to the selected component. This option button also includes options for Discrete Value Optimization and assignment to a specified Variable.

Caution
In the Variable Part Index assignment you must assign the index number (not the nominal value) to the PART_NUM parameter.

For example, *Discrete Value Optimization Variables* lists the Parameter Entry Mode options (representing 37 parts ranging from 0.1 pF to 9.1 pF) for the sc_atc_100_CDR11BG_B_19960828 component PART_NUM parameter.

Discrete Value Optimization Values

Parameter Entry Mode	Nominal Value	Parameter Entry Mode	Nominal Value
Discrete optimize	(does not apply)	Variable Part Index	(does not apply)
ATC100A0R1BP150	0.1 pF	ATC100A2R0BP150	2.0 pF
ATC100A0R2BP150	0.2 pF	ATC100A2R1BP150	2.1 pF
ATC100A0R3BP150	0.3 pF	ATC100A2R2BP150	2.2 pF
ATC100A0R4BP150	0.4 pF	ATC100A2R4BP150	2.4 pF
ATC100A0R5BP150	0.5 pF	ATC100A2R7BP150	2.7 pF
ATC100A0R6BP150	0.6 pF	ATC100A3R0BP150	3.0 pF
ATC100A0R7BP150	0.7 pF	ATC100A3R3BP150	3.3 pF
ATC100A0R8BP150	0.8 pF	ATC100A3R6BP150	3.6 pF
ATC100A0R9BP150	0.9 pF	ATC100A3R9BP150	3.9 pF
ATC100A1R0BP150	1.0 pF	ATC100A4R3BP150	4.3 pF
ATC100A1R1BP150	1.1 pF	ATC100A4R7BP150	4.7 pF
ATC100A1R2BP150	1.2 pF	ATC100A5R1BP150	5.1 pF
ATC100A1R3BP150	1.3 pF	ATC100A5R6BP150	5.6 pF
ATC100A1R4BP150	1.4 pF	ATC100A6R2BP150	6.2 pF
ATC100A1R5BP150	1.5 pF	ATC100A6R8BP150	6.8 pF
ATC100A1R6BP150	1.6 pF	ATC100A7R5BP150	7.5 pF
ATC100A1R7BP150	1.7 pF	ATC100A8R2BP150	8.2 pF
ATC100A1R8BP150	1.8 pF	ATC100A9R1BP150	9.1 pF
ATC100A1R9BP150	1.9 pF		

The *label* field appearing at the top of the Component Parameter dialog box contains the selected component label.

The SMT capacitor component represents an equivalent circuit model embedded within the netlist of the schematic design. Several physical models, described in detail in the following subsections, have been implemented in this library for different manufacturers and different series. The last subsection describes the implementation of statistics into these models.

CAPP2 Model

The majority of capacitors in the SMT Capacitor Library are based on this design. The values of the CAPP2 component parameters are extracted from *\$HPEESOF_DIR/ComponentLibs/models / SMT_CapacitorLibrary.library*.

The parameters of the CAPP2 capacitor model are described below:

- Cnom: Nominal capacitance of the CAPP2 component, in capacitance units
- TAND: Dielectric loss tangent of the CAPP2 component
- Q: Quality factor of the CAPP2 component
- FQ: Reference frequency for Q, in frequency units
- FR: Series resonance frequency of the CAPP2 component, in frequency units
- EXP: Exponent for the frequency dependence of Q

Note
For details, refer to *CAPP2 (Chip Capacitor) (ccsim)*.

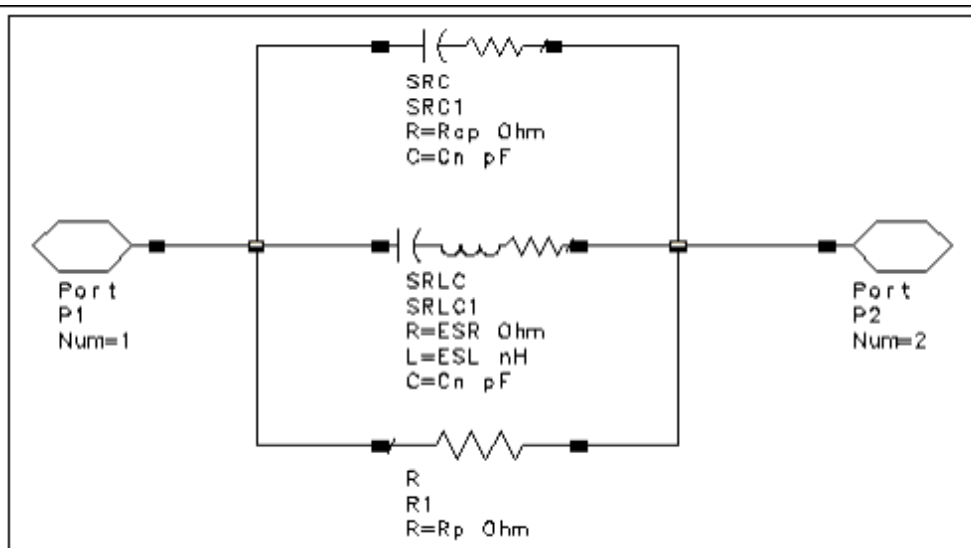
Dielectric Labs C11 and C17 Capacitor Model

The equivalent circuit model design of the Dielectric Labs C11 and C17 series is the same as the CAPP2 model with one additional feature: this model has been enhanced to include an extra parameter based on the mounting orientation of the device. The Resonant Frequency, FR, a parameter of the CAPP2 capacitor model is calculated depending on whether the device is flat- or edge-mounted. If the device is edge-mounted, then the Resonant Frequency is doubled compared to when the device is flat-mounted. In the Layout window, the rectangular dimensions representing the capacitor accurately reflect whether the device is flat- or edge-mounted.

Note
For details, refer to *CAPP2 (Chip Capacitor) (ccsim)*.

Kemet C0G Ceramic Capacitor Model

The equivalent circuit model schematic design of the Kemet C0G Series SMT capacitors (shown in [Kemet C0G Series SMT Capacitors Equivalent Circuit Model Schematic Design](#)) is dependent on temperature and is based on the model developed by Kemet as the *Kemet C0G Ceramic Capacitor Model*.



Kemet C0G Series SMT Capacitors Equivalent Circuit Model Schematic Design

The equivalent circuit values are described below:

- Cn: Nominal Capacitance value of component, in pF
- ESL: Series inductance causing series resonance, in nH

ESR: Equals $R_t * (1 + 10^{(\text{abs}(\log(\text{Frr}) - \log(\text{freq}/1\text{e}9 * 1000 + 1\text{e}-6)) - 1.5))$, in Ohm

Rt: Equals $R * 3^{((25-\text{Temperature})/100)}$

R: Resistive element close to ESR at self-resonance

Frr: Factor used in calculating ESR

Rp: Insulation resistance, in Ohm

Cp: Parallel capacitance causing parallel (secondary) resonance, in pF

Rcp: Equals $R * 1000$, in Ohm

The values of Cn, ESL, R, Frr, Rp, and Cp are extracted from `$HPEESOF_DIR/ComponentLibs/models / SMT_CapacitorLibrary.library`.

The formal parameters of the subnetwork are:

PART_NUM, which identifies a specific vendor part in the selected component
 Temperature, which refers to the temperature in Celsius

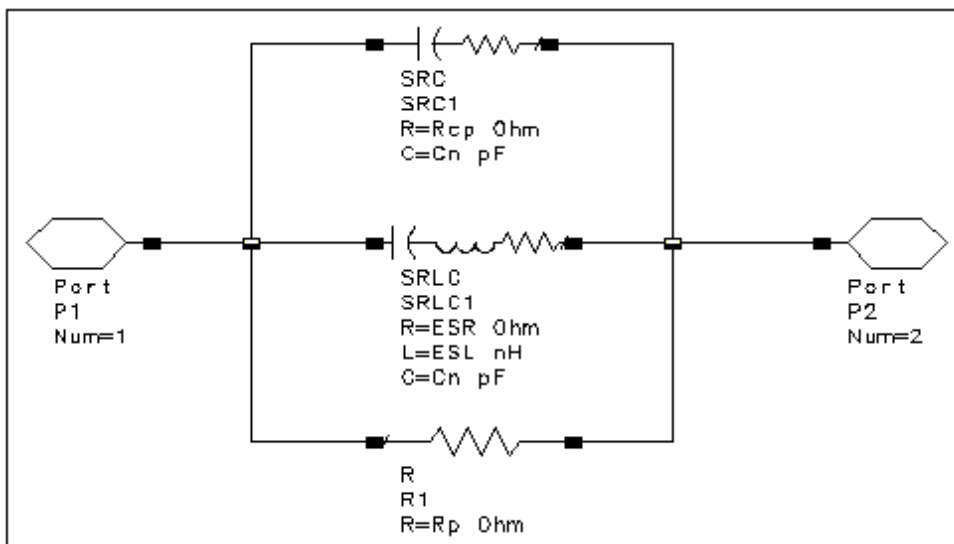
The value of Frr is based on the value of the resonant frequency that is given by:

$$\frac{1}{10^{(6)} \cdot 2\pi \sqrt{ESL \cdot 1^{-9} \cdot Cn \cdot 1^{-12}}}$$

If the resonant frequency is less than or equal to 200 MHz then Frr is equal to the resonant frequency; otherwise Frr is set constant at 200.

Kemet X7R Ceramic Capacitor Model

The equivalent circuit model schematic design of the Kemet X7R Series SMT capacitors (shown in [Kemet X7R Series SMT Capacitors Equivalent Circuit Model Schematic Design](#)) is dependent on temperature and the test voltage and is based on the model developed by Kemet as the *Kemet X7R Ceramic Capacitor Model*.



Kemet X7R Series SMT Capacitors Equivalent Circuit Model Schematic Design

The equivalent circuit values are described below:

C_n : Equals $C_{nom} \cdot (1 - V_{test}/V_c \cdot 0.2) \cdot (1 - 0.12 \cdot ((Temperature - 30)/85)^2)$

C_{nom} : Nominal Capacitance value of component, in pF

V_c : Voltage at which capacitance drops by 20%, in Volts

ESL: Series inductance causing series resonance, in nH

ESR: Equals $R_t \cdot (1 + 10^{\text{abs}(\log(Frr) - \log(freq/1e9 \cdot 1000 + 1e-6)) - 1.5}) \cdot (1 - V_{test}/V_c \cdot 0.2)$, in Ohm

R_t : Equals $R \cdot 5^{((25 - Temperature)/100)}$

R : Resistive element close to ESR at self-resonance

Frr : Factor used in calculating ESR

R_p : Insulation resistance, in Ohms

C_p : Parallel capacitance causing parallel (secondary) resonance, in pF

R_{cp} : Equals $R \cdot 1000$, in Ohms

The values of C_{nom} , V_c , ESL, R , R_p , and C_p are extracted from *\$HPEESOF_DIR/ComponentLibs/models / SMT_CapacitorLibrary.library*.

The formal parameters of the subnetwork are:

PART_NUM, which identifies a specific vendor part in the selected component

Temperature, which refers to the temperature in Celsius

V_{test} , which is the DC bias applied to capacitor

The value of Frr is based on the value of the resonant frequency that is given by:

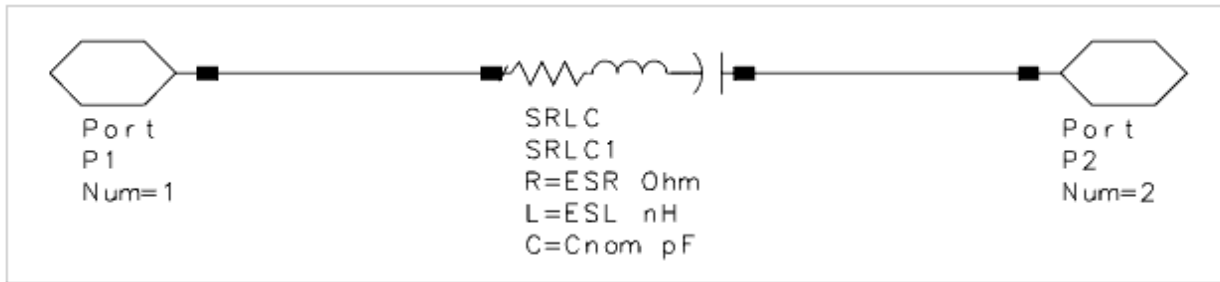
$$\frac{1}{10^6 \cdot 2\pi \sqrt{ESL \cdot 1^{-9} \cdot C_{nom} \cdot 1^{-12}}}$$

If the resonant frequency is less than or equal to 200 MHz then Frr is equal to the resonant frequency; otherwise Frr is set constant at 200.

muRata Monolithic Ceramic SMT Capacitor Model

[muRata Monolithic Ceramic SMT Capacitors Equivalent Circuit Model Schematic Design](#)

shows the equivalent circuit model schematic design of the muRata Monolithic Ceramic SMT Capacitors library that is based on device measurements and modeling performed by muRata.



muRata Monolithic Ceramic SMT Capacitors Equivalent Circuit Model Schematic Design

The equivalent circuit values are described below:

Cnom: Nominal capacitance, in pF
 ESR: Equivalent series resistance, in Ohm
 ESL: Equivalent series inductance, in nH

These values are extracted from *\$HPEESOF_DIR/ComponentLibs/models / SMT_CapacitorLibrary.library*.

Please note that Statistical Yield Analysis is not available through this library.

Philips Measurement-Based CMC Capacitor Model

The Phillips CMC Series SMT Capacitors are an exception in the SMT libraries because these capacitors are based on actual frequency dependent S-parameter measured data files and are not represented by an equivalent circuit model. The measured data is extracted from:

\$HPEESOF_DIR/ComponentLibs/models / SMT_CapacitorLibrary.library.

The S-Parameter measurements in these data files are performed in the range of 0 to 15 GHz. The S-parameters depicted for each discrete capacitor represent the actual behavior of the CMC capacitors mounted on a 50 Ohm stripline of Al_2O_3 (Alumina) substrate with a thickness of 0.635 mm. As such, the capacitors in this library can not be used to simulate capacitors mounted on a different substrate. The external influence of manufacturing has been de-embedded from the S-parameter data. Statistical Yield Analysis is not available through this library.

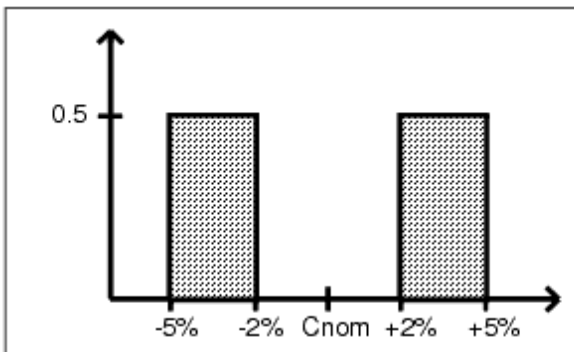
Statistical Implementation in the Schematic Design

Statistical implementation refers to the capability of simulating discrete yield analysis for a particular capacitor. This capability is available with most of the models in this library. The libraries that do not offer this capability are the MuRata MC and the Philips CMC Capacitor libraries. The probability density function (PDF) associated with each capacitance value is defined by piecewise linear characteristics. For parts that represent the tightest tolerance available from the manufacturer, the associated PDF for the capacitor is represented by a

uniform distribution, centered at the nominal capacitance value and with width of plus or minus the tolerance associated with the model group component. The height of the uniform probability density function is equal to 1.

Manufacturers have two ways of producing parts with a specific tolerance. The first method is to manufacture for a nominal value with a specific tolerance. In the second method the manufacturer pre-selects the higher tolerance parts from a given batch and the probability that the customer will receive a part within the tighter tolerance range is zero. Model group components that represent parts selected with the first method will have a uniform probability density function for each tolerance value and model group components that represent parts selected with the second method will have their looser tolerances employ bimodal probability density functions, representing a uniform distribution for the specified tolerance minus the PDF associated with the next smaller tolerance.

In all cases, uniform distributions of the density functions were chosen to approximate the gaussian manufacturing process, since the standard deviations of the process are not available to EEs of. The uniform approximation will yield more pessimistic (conservative) yield estimates than the true gaussian distributions, if ones were available. A graphical example of a PDF is shown in [SMT Capacitor Model Library Probability Density Function Example](#). In this example, the manufacturer group offers 1%, 2%, 5%, and 10% parts. Customers ordering 5% parts will receive only capacitance values falling between $0.95 \cdot C_{nom}$ to $0.98 \cdot C_{nom}$ or between $1.02 \cdot C_{nom}$ to $1.05 \cdot C_{nom}$.



[SMT Capacitor Model Library Probability Density Function Example](#)

ATC 100 Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The ATC 100 Series SMT Capacitors include 32 components, representing 4 case styles and 8 capacitance tolerances. The naming convention for these components is `sc_atc_100_<case style>_<temperature coefficient code>_<tolerance code>_<extraction date>`.

where:

MIL-C-55681/4 cross-referenced case style = CDR11, CDR12, CDR13, or CDR14
 temperature coefficient code = BG (P90 ± 20 ppm/ $^{\circ}$ C thermal coefficient over the range of -55 to $+125^{\circ}$ C)

Advanced Design System 2011.01 - Vendor Component Libraries - RF Passive SMT Library
tolerance code = B (± 0.1 pF), C ($+0/-0.25$ pF), D (± 0.5 pF), F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$)

case dimensions (length \times width) are:

- CDR11: .055 inches \times .055 inches (A-size chip)
- CDR12: .055 inches \times .055 inches (A-size pellet)
- CDR13: .110 inches \times .110 inches (B-size chip)
- CDR14: .110 inches \times .110 inches (B-size pellet)

The schematic design model for the ATC 100 Series SMT capacitors is given by the CAPP2 model.

ATC 100 Series SMT Capacitors

Name	Description
sc_atc_100_CDR11BG_B_19960828	ATC 100 Series, CDR11 Case, B Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_atc_100_CDR11BG_C_19960828	ATC 100 Series, CDR11 Case, C Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_atc_100_CDR11BG_D_19960828	ATC 100 Series, CDR11 Case, D Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_atc_100_CDR11BG_F_19960828	ATC 100 Series, CDR11 Case, F Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-1%
sc_atc_100_CDR11BG_G_19960828	ATC 100 Series, CDR11 Case, G Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-2%
sc_atc_100_CDR11BG_J_19960828	ATC 100 Series, CDR11 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-5%
sc_atc_100_CDR11BG_K_19960828	ATC 100 Series, CDR11 Case, K Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-10%
sc_atc_100_CDR11BG_M_19960828	ATC 100 Series, CDR11 Case, M Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-20%
sc_atc_100_CDR12BG_B_19960828	ATC 100 Series, CDR12 Case, B Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_atc_100_CDR12BG_C_19960828	ATC 100 Series, CDR12 Case, C Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_atc_100_CDR12BG_D_19960828	ATC 100 Series, CDR12 Case, D Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_atc_100_CDR12BG_F_19960828	ATC 100 Series, CDR12 Case, F Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-1%
sc_atc_100_CDR12BG_G_19960828	ATC 100 Series, CDR12 Case, G Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-2%
sc_atc_100_CDR12BG_J_19960828	ATC 100 Series, CDR12 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-5%
sc_atc_100_CDR12BG_K_19960828	ATC 100 Series, CDR12 Case, K Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-10%
sc_atc_100_CDR12BG_M_19960828	ATC 100 Series, CDR12 Case, M Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-20%
sc_atc_100_CDR13BG_B_19960828	ATC 100 Series, CDR13 Case, B Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF

sc_atc_100_CDR13BG_C_19960828	ATC 100 Series, CDR13 Case, C Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_atc_100_CDR13BG_D_19960828	ATC 100 Series, CDR13 Case, D Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_atc_100_CDR13BG_F_19960828	ATC 100 Series, CDR13 Case, F Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-1%
sc_atc_100_CDR13BG_G_19960828	ATC 100 Series, CDR13 Case, G Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-2%
sc_atc_100_CDR13BG_J_19960828	ATC 100 Series, CDR13 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-5%
sc_atc_100_CDR13BG_K_19960828	ATC 100 Series, CDR13 Case, K Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-10%
sc_atc_100_CDR13BG_M_19960828	ATC 100 Series, CDR13 Case, M Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-20%
sc_atc_100_CDR14BG_B_19960828	ATC 100 Series, CDR14 Case, B Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_atc_100_CDR14BG_C_19960828	ATC 100 Series, CDR14 Case, C Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_atc_100_CDR14BG_D_19960828	ATC 100 Series, CDR14 Case, D Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_atc_100_CDR14BG_F_19960828	ATC 100 Series, CDR14 Case, F Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-1%
sc_atc_100_CDR14BG_G_19960828	ATC 100 Series, CDR14 Case, G Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-2%
sc_atc_100_CDR14BG_J_19960828	ATC 100 Series, CDR14 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-5%
sc_atc_100_CDR14BG_K_19960828	ATC 100 Series, CDR14 Case, K Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-10%
sc_atc_100_CDR14BG_M_19960828	ATC 100 Series, CDR14 Case, M Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-20%

ATC 180 Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The ATC 180 Series SMT Capacitors include 16 components, representing 2 case styles and 8 capacitance tolerances. The naming convention for these components is `sc_atc_180_<case style>_<tolerance code>_<extraction date>`.

where:

case style = RP or RW

tolerance code = B (± 0.1 pF), C ($+0/-0.25$ pF), D (± 0.5 pF), F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$)

temperature coefficient code = BP (0 ± 30 ppm/ $^{\circ}$ C thermal coefficient over the range of -55 to $+125^{\circ}$ C)

case dimensions (length \times width) are:

RP: .079 inches \times .105 inches (pellet)

The schematic design model for the ATC 180 Series SMT capacitors is given by the CAPP2 model.

ATC 180 Series SMT Capacitors

Name	Description
sc_atc_180_RP_B_19960828	ATC 180 Series, RP Case, B Tolerance, 33 Parts: 0.5pF-9.1pF, +/-0.1pF
sc_atc_180_RP_C_19960828	ATC 180 Series, RP Case, C Tolerance, 33 Parts: 0.5pF-9.1pF, +/-0.25pF
sc_atc_180_RP_D_19960828	ATC 180 Series, RP Case, D Tolerance, 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_atc_180_RP_F_19960828	ATC 180 Series, RP Case, F Tolerance, 25 Parts: 10pF-100pF, +/-1%
sc_atc_180_RP_G_19960828	ATC 180 Series, RP Case, G Tolerance, 25 Parts: 10pF-100pF, +/-2%
sc_atc_180_RP_J_19960828	ATC 180 Series, RP Case, J Tolerance, 29 Parts: 6.8pF-100pF, +/-5%
sc_atc_180_RP_K_19960828	ATC 180 Series, RP Case, K Tolerance, 29 Parts: 6.8pF-100pF, +/-10%
sc_atc_180_RP_M_19960828	ATC 180 Series, RP Case, M Tolerance, 29 Parts: 6.8pF-100pF, +/-20%
sc_atc_180_RW_B_19960828	ATC 180 Series, RW Case, B Tolerance, 33 Parts: 0.5pF-9.1pF, +/-0.1pF
sc_atc_180_RW_C_19960828	ATC 180 Series, RW Case, C Tolerance, 33 Parts: 0.5pF-9.1pF, +/-0.25pF
sc_atc_180_RW_D_19960828	ATC 180 Series, RW Case, D Tolerance, 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_atc_180_RW_F_19960828	ATC 180 Series, RW Case, F Tolerance, 25 Parts: 10pF-100pF, +/-1%
sc_atc_180_RW_G_19960828	ATC 180 Series, RW Case, G Tolerance, 25 Parts: 10pF-100pF, +/-2%
sc_atc_180_RW_J_19960828	ATC 180 Series, RW Case, J Tolerance, 29 Parts: 6.8pF-100pF, +/-5%
sc_atc_180_RW_K_19960828	ATC 180 Series, RW Case, K Tolerance, 29 Parts: 6.8pF-100pF, +/-10%
sc_atc_180_RW_M_19960828	ATC 180 Series, RW Case, M Tolerance, 29 Parts: 6.8pF-100pF, +/-20%

ATC 700 Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The ATC 700 Series SMT Capacitors include 32 components, representing 4 case styles and 8 capacitance tolerances. The naming convention for these components is `sc_atc_700_<case style>_<temperature coefficient code>_<tolerance code>_<extraction date>`.

where:

- MIL-C-55681/4 cross-referenced case style = CDR11, CDR12, CDR13, or CDR14
- temperature coefficient code = BP (0 ±30 ppm/°C thermal coefficient over the range of -55 to +125°C)
- tolerance code = B (±0.1 pF), C (+0/-0.25 pF), D (±0.5 pF), F (±1%), G (±2%), J (±5%), K (±10%), or M (±20%)

case dimensions (length × width) are:

- CDR11: .055 inches × .055 inches (A-size chip)
- CDR12: .055 inches × .055 inches (A-size pellet)
- CDR13: .110 inches × .110 inches (B-size chip)

The schematic design model for the ATC 700 Series SMT capacitors is given by the CAPP2 model.

ATC 700 Series SMT Capacitors

Name	Description
sc_atc_700_CDR11BP_B_19960828	ATC 700 Series, CDR11 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_atc_700_CDR11BP_C_19960828	ATC 700 Series, CDR11 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_atc_700_CDR11BP_D_19960828	ATC 700 Series, CDR11 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_atc_700_CDR11BP_F_19960828	ATC 700 Series, CDR11 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-1%
sc_atc_700_CDR11BP_G_19960828	ATC 700 Series, CDR11 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-2%
sc_atc_700_CDR11BP_J_19960828	ATC 700 Series, CDR11 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-5%
sc_atc_700_CDR11BP_K_19960828	ATC 700 Series, CDR11 Case, K Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-10%
sc_atc_700_CDR11BP_M_19960828	ATC 700 Series, CDR11 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-20%
sc_atc_700_CDR12BP_B_19960828	ATC 700 Series, CDR12 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_atc_700_CDR12BP_C_19960828	ATC 700 Series, CDR12 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_atc_700_CDR12BP_D_19960828	ATC 700 Series, CDR12 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_atc_700_CDR12BP_F_19960828	ATC 700 Series, CDR12 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-1%
sc_atc_700_CDR12BP_G_19960828	ATC 700 Series, CDR12 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-2%
sc_atc_700_CDR12BP_J_19960828	ATC 700 Series, CDR12 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-5%
sc_atc_700_CDR12BP_K_19960828	ATC 700 Series, CDR12 Case, K Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-10%
sc_atc_700_CDR12BP_M_19960828	ATC 700 Series, CDR12 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-20%
sc_atc_700_CDR13BP_B_19960828	ATC 700 Series, CDR13 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_atc_700_CDR13BP_C_19960828	ATC 700 Series, CDR13 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_atc_700_CDR13BP_D_19960828	ATC 700 Series, CDR13 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_atc_700_CDR13BP_F_19960828	ATC 700 Series, CDR13 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 67 Parts: 10pF-5.1nF, +/-1%
sc_atc_700_CDR13BP_G_19960828	ATC 700 Series, CDR13 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 67 Parts: 10pF-5.1nF, +/-2%

sc_atc_700_CDR13BP_J_19960828	ATC 700 Series, CDR13 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 71 Parts: 6.8pF-5.1nF, +/-5%
sc_atc_700_CDR13BP_K_19960828	ATC 700 Series, CDR13 Case, K Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 71 Parts: 6.8pF-5.1nF, +/-10%
sc_atc_700_CDR13BP_M_19960828	ATC 700 Series, CDR13 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 71 Parts: 6.8pF-5.1nF, +/-20%
sc_atc_700_CDR14BP_B_19960828	ATC 700 Series, CDR14 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_atc_700_CDR14BP_C_19960828	ATC 700 Series, CDR14 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_atc_700_CDR14BP_D_19960828	ATC 700 Series, CDR14 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_atc_700_CDR14BP_F_19960828	ATC 700 Series, CDR14 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 67 Parts: 10pF-5.1nF, +/-1%
sc_atc_700_CDR14BP_G_19960828	ATC 700 Series, CDR14 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 67 Parts: 10pF-5.1nF, +/-2%
sc_atc_700_CDR14BP_J_19960828	ATC 700 Series, CDR14 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 71 Parts: 6.8pF-5.1nF, +/-5%
sc_atc_700_CDR14BP_K_19960828	ATC 700 Series, CDR14 Case, K Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 71 Parts: 6.8pF-5.1nF, +/-10%
sc_atc_700_CDR14BP_M_19960828	ATC 700 Series, CDR14 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 71 Parts: 6.8pF-5.1nF, +/-20%

AVX ACCU-F Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

AVX has re-released the ACCU-F series of capacitors by reducing the number of case sizes from 7 to 5. The AVX ACCU-F capacitors are used for applications that include mobile communications cellular, CT2 and PCN.

The AVX ACCU-F Series SMT Capacitors include 126 components, representing 5 case styles, 3 voltage ratings, and 7 capacitance tolerances. The naming convention for these components is `sc_avx_ACCU-F_<case style><voltage code><temp coeff code>_<tolerance code>_<extraction date>_`.

where:

case style = 0403, 0504, 0603, 0805, or 1206

voltage code = 1(100V), 5(50V), or 3(25V)

temperature coefficient code =

J (0 ±30 ppm/°C thermal coefficient over the range of -55 to +125°C)

or K (0 ±60 ppm/°C thermal coefficient over the range of -55 to +125°C)

tolerance code = A (±0.05 pF), B (±0.1 pF), C (+0/-0.25 pF), D (±0.5 pF), F (±1%), G (±2%), or J (±5%)

case dimensions (length × width) are:

0403: .043 inches × .030 inches

0504: .053 inches × .040 inches

0603: .061 inches × .032 inches

0805: .079 inches × .050 inches

1206: .119 inches × .062 inches

The schematic design model for the AVX ACCU-F Series SMT capacitors is given by the CAPP2 model.

AVX ACCU-F Series SMT Capacitors

Name	Description
sc_avx_ACCU-F_04031J_A_19960828	AVX ACCU-F Series, 0403 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 13 Parts: 0.1pF-1.8pF, +/-0.05pF
sc_avx_ACCU-F_04031J_B_19960828	AVX ACCU-F Series, 0403 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 13 Parts: 0.1pF-1.8pF, +/-0.1pF
sc_avx_ACCU-F_04031J_C_19960828	AVX ACCU-F Series, 0403 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 13 Parts: 0.1pF-1.8pF, +/-0.25pF
sc_avx_ACCU-F_04031K_A_19960828	AVX ACCU-F Series, 0403 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 16 Parts: 0.1pF-3.3pF, +/-0.05pF
sc_avx_ACCU-F_04031K_B_19960828	AVX ACCU-F Series, 0403 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 16 Parts: 0.1pF-3.3pF, +/-0.1pF
sc_avx_ACCU-F_04031K_C_19960828	AVX ACCU-F Series, 0403 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 16 Parts: 0.1pF-3.3pF, +/-0.25pF
sc_avx_ACCU-F_04035J_A_19960828	AVX ACCU-F Series, 0403 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_04035J_B_19960828	AVX ACCU-F Series, 0403 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 20 Parts: 0.1pF-6.8pF, +/-0.1pF
sc_avx_ACCU-F_04035J_C_19960828	AVX ACCU-F Series, 0403 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 20 Parts: 0.1pF-6.8pF, +/-0.25pF
sc_avx_ACCU-F_04035J_D_19960828	AVX ACCU-F Series, 0403 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 1 Parts: 6.8pF, +/-0.5pF
sc_avx_ACCU-F_04035K_A_19960828	AVX ACCU-F Series, 0403 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_04035K_B_19960828	AVX ACCU-F Series, 0403 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_04035K_C_19960828	AVX ACCU-F Series, 0403 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_04035K_D_19960828	AVX ACCU-F Series, 0403 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_04035K_F_19960828	AVX ACCU-F Series, 0403 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 10pF-12pF, +/-1%
sc_avx_ACCU-F_04035K_G_19960828	AVX ACCU-F Series, 0403 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 10pF-12pF, +/-2%
sc_avx_ACCU-F_04035K_J_19960828	AVX ACCU-F Series, 0403 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 10pF-12pF, +/-5%
sc_avx_ACCU-F_05041J_A_19960828	AVX ACCU-F Series, 0504 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 16 Parts: 0.1pF-3.3pF, +/-0.05pF
sc_avx_ACCU-F_05041J_B_19960828	AVX ACCU-F Series, 0504 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 16 Parts: 0.1pF-3.3pF, +/-0.1pF
sc_avx_ACCU-F_05041J_C_19960828	AVX ACCU-F Series, 0504 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 16 Parts: 0.1pF-3.3pF, +/-0.25pF
sc_avx_ACCU-	AVX ACCU-F Series, 0504 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to

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F_05041K_A_19960828	+125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_05041K_B_19960828	AVX ACCU-F Series, 0504 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 20 Parts: 0.1pF-6.8pF, +/-0.1pF
sc_avx_ACCU-F_05041K_C_19960828	AVX ACCU-F Series, 0504 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 20 Parts: 0.1pF-6.8pF, +/-0.25pF
sc_avx_ACCU-F_05041K_D_19960828	AVX ACCU-F Series, 0504 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 1 Parts: 6.8pF, +/-0.5pF
sc_avx_ACCU-F_05045J_A_19960828	AVX ACCU-F Series, 0504 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_05045J_B_19960828	AVX ACCU-F Series, 0504 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_05045J_C_19960828	AVX ACCU-F Series, 0504 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_05045J_D_19960828	AVX ACCU-F Series, 0504 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_05045J_F_19960828	AVX ACCU-F Series, 0504 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 4 Parts: 10pF-18pF, +/-1%
sc_avx_ACCU-F_05045J_G_19960828	AVX ACCU-F Series, 0504 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 4 Parts: 10pF-18pF, +/-2%
sc_avx_ACCU-F_05045J_J_19960828	AVX ACCU-F Series, 0504 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 4 Parts: 10pF-18pF, +/-5%
sc_avx_ACCU-F_05045K_A_19960828	AVX ACCU-F Series, 0504 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_05045K_B_19960828	AVX ACCU-F Series, 0504 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_05045K_C_19960828	AVX ACCU-F Series, 0504 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_05045K_D_19960828	AVX ACCU-F Series, 0504 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_05045K_F_19960828	AVX ACCU-F Series, 0504 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 10pF-22pF, +/-1%
sc_avx_ACCU-F_05045K_G_19960828	AVX ACCU-F Series, 0504 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 10pF-22pF, +/-2%
sc_avx_ACCU-F_05045K_J_19960828	AVX ACCU-F Series, 0504 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 10pF-22pF, +/-5%
sc_avx_ACCU-F_06031J_A_19960828	AVX ACCU-F Series, 0603 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 17 Parts: 0.1pF-3.9pF, +/-0.05pF
sc_avx_ACCU-F_06031J_B_19960828	AVX ACCU-F Series, 0603 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 17 Parts: 0.1pF-3.9pF, +/-0.1pF
sc_avx_ACCU-F_06031J_C_19960828	AVX ACCU-F Series, 0603 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 17 Parts: 0.1pF-3.9pF, +/-0.25pF
sc_avx_ACCU-F_06031K_A_19960828	AVX ACCU-F Series, 0603 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_06031K_B_19960828	AVX ACCU-F Series, 0603 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 20 Parts: 0.1pF-6.8pF, +/-0.1pF
sc_avx_ACCU-F_06031K_C_19960828	AVX ACCU-F Series, 0603 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 20 Parts: 0.1pF-6.8pF, +/-0.25pF
sc_avx_ACCU-F_06031K_D_19960828	AVX ACCU-F Series, 0603 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 1 Parts: 6.8pF, +/-0.5pF
sc_avx_ACCU-	AVX ACCU-F Series, 0603 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to

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F_06033K_A_19960828	+125 deg C), 25V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_06033K_B_19960828	AVX ACCU-F Series, 0603 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_06033K_C_19960828	AVX ACCU-F Series, 0603 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_06033K_D_19960828	AVX ACCU-F Series, 0603 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_06033K_F_19960828	AVX ACCU-F Series, 0603 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 7 Parts: 10pF-33pF, +/-1%
sc_avx_ACCU-F_06033K_G_19960828	AVX ACCU-F Series, 0603 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 7 Parts: 10pF-33pF, +/-2%
sc_avx_ACCU-F_06033K_J_19960828	AVX ACCU-F Series, 0603 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 7 Parts: 10pF-33pF, +/-5%
sc_avx_ACCU-F_06035J_A_19960828	AVX ACCU-F Series, 0603 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_06035J_B_19960828	AVX ACCU-F Series, 0603 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_06035J_C_19960828	AVX ACCU-F Series, 0603 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_06035J_D_19960828	AVX ACCU-F Series, 0603 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_06035J_F_19960828	AVX ACCU-F Series, 0603 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 3 Parts: 10pF-15pF, +/-1%
sc_avx_ACCU-F_06035J_G_19960828	AVX ACCU-F Series, 0603 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 3 Parts: 10pF-15pF, +/-2%
sc_avx_ACCU-F_06035J_J_19960828	AVX ACCU-F Series, 0603 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 3 Parts: 10pF-15pF, +/-5%
sc_avx_ACCU-F_06035K_A_19960828	AVX ACCU-F Series, 0603 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_06035K_B_19960828	AVX ACCU-F Series, 0603 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_06035K_C_19960828	AVX ACCU-F Series, 0603 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_06035K_D_19960828	AVX ACCU-F Series, 0603 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_06035K_F_19960828	AVX ACCU-F Series, 0603 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 10pF-22pF, +/-1%
sc_avx_ACCU-F_06035K_G_19960828	AVX ACCU-F Series, 0603 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 10pF-22pF, +/-2%
sc_avx_ACCU-F_06035K_J_19960828	AVX ACCU-F Series, 0603 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 10pF-22pF, +/-5%
sc_avx_ACCU-F_08051J_A_19960828	AVX ACCU-F Series, 0805 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_08051J_B_19960828	AVX ACCU-F Series, 0805 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_08051J_C_19960828	AVX ACCU-F Series, 0805 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_08051J_D_19960828	AVX ACCU-F Series, 0805 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-	AVX ACCU-F Series, 0805 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to

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F_08051K_A_19960828	+125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_08051K_B_19960828	AVX ACCU-F Series, 0805 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_08051K_C_19960828	AVX ACCU-F Series, 0805 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_08051K_D_19960828	AVX ACCU-F Series, 0805 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_08051K_F_19960828	AVX ACCU-F Series, 0805 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 3 Parts: 10pF-15pF, +/-1%
sc_avx_ACCU-F_08051K_G_19960828	AVX ACCU-F Series, 0805 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 3 Parts: 10pF-15pF, +/-2%
sc_avx_ACCU-F_08051K_J_19960828	AVX ACCU-F Series, 0805 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 3 Parts: 10pF-15pF, +/-5%
sc_avx_ACCU-F_08053K_A_19960828	AVX ACCU-F Series, 0805 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_08053K_B_19960828	AVX ACCU-F Series, 0805 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_08053K_C_19960828	AVX ACCU-F Series, 0805 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_08053K_D_19960828	AVX ACCU-F Series, 0805 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_08053K_F_19960828	AVX ACCU-F Series, 0805 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 13 Parts: 10pF-100pF, +/-1%
sc_avx_ACCU-F_08053K_G_19960828	AVX ACCU-F Series, 0805 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 13 Parts: 10pF-100pF, +/-2%
sc_avx_ACCU-F_08053K_J_19960828	AVX ACCU-F Series, 0805 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 13 Parts: 10pF-100pF, +/-5%
sc_avx_ACCU-F_08055J_A_19960828	AVX ACCU-F Series, 0805 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_08055J_B_19960828	AVX ACCU-F Series, 0805 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_08055J_C_19960828	AVX ACCU-F Series, 0805 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_08055J_D_19960828	AVX ACCU-F Series, 0805 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_08055J_F_19960828	AVX ACCU-F Series, 0805 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-1%
sc_avx_ACCU-F_08055J_G_19960828	AVX ACCU-F Series, 0805 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-2%
sc_avx_ACCU-F_08055J_J_19960828	AVX ACCU-F Series, 0805 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-5%
sc_avx_ACCU-F_08055K_A_19960828	AVX ACCU-F Series, 0805 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_08055K_B_19960828	AVX ACCU-F Series, 0805 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_08055K_C_19960828	AVX ACCU-F Series, 0805 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_08055K_D_19960828	AVX ACCU-F Series, 0805 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_08055K_F_19960828	AVX ACCU-F Series, 0805 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-1%

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F_08055K_F_19960828	+125 deg C), 50V, 10 Parts: 10pF-56pF, +/-1%
sc_avx_ACCU-F_08055K_G_19960828	AVX ACCU-F Series, 0805 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 10 Parts: 10pF-56pF, +/-2%
sc_avx_ACCU-F_08055K_J_19960828	AVX ACCU-F Series, 0805 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 10 Parts: 10pF-56pF, +/-5%
sc_avx_ACCU-F_12061J_A_19960828	AVX ACCU-F Series, 1206 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_12061J_B_19960828	AVX ACCU-F Series, 1206 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_12061J_C_19960828	AVX ACCU-F Series, 1206 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_12061J_D_19960828	AVX ACCU-F Series, 1206 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_12061J_F_19960828	AVX ACCU-F Series, 1206 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 4 Parts: 10pF-18pF, +/-1%
sc_avx_ACCU-F_12061J_G_19960828	AVX ACCU-F Series, 1206 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 4 Parts: 10pF-18pF, +/-2%
sc_avx_ACCU-F_12061J_J_19960828	AVX ACCU-F Series, 1206 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 4 Parts: 10pF-18pF, +/-5%
sc_avx_ACCU-F_12061K_A_19960828	AVX ACCU-F Series, 1206 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_12061K_B_19960828	AVX ACCU-F Series, 1206 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_12061K_C_19960828	AVX ACCU-F Series, 1206 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_12061K_D_19960828	AVX ACCU-F Series, 1206 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_12061K_F_19960828	AVX ACCU-F Series, 1206 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 7 Parts: 10pF-33pF, +/-1%
sc_avx_ACCU-F_12061K_G_19960828	AVX ACCU-F Series, 1206 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 7 Parts: 10pF-33pF, +/-2%
sc_avx_ACCU-F_12061K_J_19960828	AVX ACCU-F Series, 1206 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 7 Parts: 10pF-33pF, +/-5%
sc_avx_ACCU-F_12065J_A_19960828	AVX ACCU-F Series, 1206 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_12065J_B_19960828	AVX ACCU-F Series, 1206 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_12065J_C_19960828	AVX ACCU-F Series, 1206 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_12065J_D_19960828	AVX ACCU-F Series, 1206 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_12065J_F_19960828	AVX ACCU-F Series, 1206 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 11 Parts: 10pF-68pF, +/-1%
sc_avx_ACCU-F_12065J_G_19960828	AVX ACCU-F Series, 1206 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 11 Parts: 10pF-68pF, +/-2%
sc_avx_ACCU-F_12065J_J_19960828	AVX ACCU-F Series, 1206 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 11 Parts: 10pF-68pF, +/-5%
sc_avx_ACCU-F_12065K_A_19960828	AVX ACCU-F Series, 1206 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-	AVX ACCU-F Series, 1206 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to

F_12065K_B_19960828	+125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_12065K_C_19960828	AVX ACCU-F Series, 1206 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_12065K_D_19960828	AVX ACCU-F Series, 1206 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_12065K_F_19960828	AVX ACCU-F Series, 1206 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 14 Parts: 10pF-120pF, +/-1%
sc_avx_ACCU-F_12065K_G_19960828	AVX ACCU-F Series, 1206 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 14 Parts: 10pF-120pF, +/-2%
sc_avx_ACCU-F_12065K_J_19960828	AVX ACCU-F Series, 1206 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 14 Parts: 10pF-120pF, +/-5%

AVX ACCU-P Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The AVX ACCU-P capacitors are used for applications that include cellular radio base stations, military and commercial transceivers, filters, and satellite TV, and data transmission.

The AVX ACCU-P capacitors include 53 components, representing 2 case styles, 2 voltage ratings, and 7 capacitance tolerances. The naming convention for these components is *sc_avx_ACCU-P_<case style><voltage code><temp coeff code>_<tolerance code>_<extraction date>*.

where:

case style = 0805 or 1210

voltage code = 1(100V) or 5(50V)

temperature coefficient code =

J (0 ±30 ppm/°C thermal coefficient over the range of -55 to +125°C)

or K (0 ±60 ppm/°C thermal coefficient over the range of -55 to +125°C)

tolerance code = A (±0.05 pF), B (±0.1 pF), C (+0/ -0.25 pF), D (±0.5 pF), F (±1%), G (±2%) or J (±5%)

case dimensions (length × width) are:

0805: .079 inches × .050 inches

1210: .119 inches × .100 inches

The schematic design model for the AVX ACCU-P Series SMT capacitors is given by the CAPP2 model.

AVX ACCU-P Series SMT Capacitors

Name	Description
sc_avx_ACCU-P_08051J_A_19960828	AVX ACCU-P Series, 0805 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-	AVX ACCU-P Series, 0805 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to

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P_08051J_B_19960828	+125 deg C), 100V, 20 Parts: 0.1pF-6.8pF, +/-0.1pF
sc_avx_ACCU-P_08051J_C_19960828	AVX ACCU-P Series, 0805 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 20 Parts: 0.1pF-6.8pF, +/-0.25pF
sc_avx_ACCU-P_08051J_D_19960828	AVX ACCU-P Series, 0805 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 1 Parts: 6.8pF, +/-0.5pF
sc_avx_ACCU-P_08051K_A_19960828	AVX ACCU-P Series, 0805 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_08051K_B_19960828	AVX ACCU-P Series, 0805 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_08051K_C_19960828	AVX ACCU-P Series, 0805 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_08051K_D_19960828	AVX ACCU-P Series, 0805 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_08051K_F_19960828	AVX ACCU-P Series, 0805 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 10pF-12pF, +/-1%
sc_avx_ACCU-P_08051K_G_19960828	AVX ACCU-P Series, 0805 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 10pF-12pF, +/-2%
sc_avx_ACCU-P_08051K_J_19960828	AVX ACCU-P Series, 0805 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 10pF-12pF, +/-5%
sc_avx_ACCU-P_08055J_A_19960828	AVX ACCU-P Series, 0805 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_08055J_B_19960828	AVX ACCU-P Series, 0805 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_08055J_C_19960828	AVX ACCU-P Series, 0805 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_08055J_D_19960828	AVX ACCU-P Series, 0805 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_08055J_F_19960828	AVX ACCU-P Series, 0805 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 6 Parts: 10pF-27pF, +/-1%
sc_avx_ACCU-P_08055J_G_19960828	AVX ACCU-P Series, 0805 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 6 Parts: 10pF-27pF, +/-2%
sc_avx_ACCU-P_08055J_J_19960828	AVX ACCU-P Series, 0805 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 6 Parts: 10pF-27pF, +/-5%
sc_avx_ACCU-P_08055K_A_19960828	AVX ACCU-P Series, 0805 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_08055K_B_19960828	AVX ACCU-P Series, 0805 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_08055K_C_19960828	AVX ACCU-P Series, 0805 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_08055K_D_19960828	AVX ACCU-P Series, 0805 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_08055K_F_19960828	AVX ACCU-P Series, 0805 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-1%
sc_avx_ACCU-P_08055K_G_19960828	AVX ACCU-P Series, 0805 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-2%
sc_avx_ACCU-P_08055K_J_19960828	AVX ACCU-P Series, 0805 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-5%
sc_avx_ACCU-P_12101J_A_19960828	AVX ACCU-P Series, 1210 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-	AVX ACCU-P Series, 1210 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to

Advanced Design System 2011.01 - Vendor Component Libraries - RF Passive SMT Library

P_12101J_B_19960828	+125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_12101J_C_19960828	AVX ACCU-P Series, 1210 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_12101J_D_19960828	AVX ACCU-P Series, 1210 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_12101J_F_19960828	AVX ACCU-P Series, 1210 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 6 Parts: 10pF-27pF, +/-1%
sc_avx_ACCU-P_12101J_G_19960828	AVX ACCU-P Series, 1210 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 6 Parts: 10pF-27pF, +/-2%
sc_avx_ACCU-P_12101J_J_19960828	AVX ACCU-P Series, 1210 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 6 Parts: 10pF-27pF, +/-5%
sc_avx_ACCU-P_12101K_A_19960828	AVX ACCU-P Series, 1210 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_12101K_B_19960828	AVX ACCU-P Series, 1210 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_12101K_C_19960828	AVX ACCU-P Series, 1210 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_12101K_D_19960828	AVX ACCU-P Series, 1210 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_12101K_F_19960828	AVX ACCU-P Series, 1210 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 9 Parts: 10pF-47pF, +/-1%
sc_avx_ACCU-P_12101K_G_19960828	AVX ACCU-P Series, 1210 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 9 Parts: 10pF-47pF, +/-2%
sc_avx_ACCU-P_12101K_J_19960828	AVX ACCU-P Series, 1210 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 9 Parts: 10pF-47pF, +/-5%
sc_avx_ACCU-P_12105J_A_19960828	AVX ACCU-P Series, 1210 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_12105J_B_19960828	AVX ACCU-P Series, 1210 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_12105J_C_19960828	AVX ACCU-P Series, 1210 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_12105J_D_19960828	AVX ACCU-P Series, 1210 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_12105J_F_19960828	AVX ACCU-P Series, 1210 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 12 Parts: 10pF-82pF, +/-1%
sc_avx_ACCU-P_12105J_G_19960828	AVX ACCU-P Series, 1210 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 12 Parts: 10pF-82pF, +/-2%
sc_avx_ACCU-P_12105J_J_19960828	AVX ACCU-P Series, 1210 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 12 Parts: 10pF-82pF, +/-5%
sc_avx_ACCU-P_12105K_A_19960828	AVX ACCU-P Series, 1210 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_12105K_B_19960828	AVX ACCU-P Series, 1210 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_12105K_C_19960828	AVX ACCU-P Series, 1210 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_12105K_D_19960828	AVX ACCU-P Series, 1210 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_12105K_F_19960828	AVX ACCU-P Series, 1210 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 13 Parts: 10pF-100pF, +/-1%
sc_avx_ACCU-	AVX ACCU-P Series, 1210 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to

P_12105K_G_19960828	+125 deg C), 50V, 13 Parts: 10pF-100pF, +/-2%
sc_avx_ACCU- P_12105K_J_19960828	AVX ACCU-P Series, 1210 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 13 Parts: 10pF-100pF, +/-5%

AVX AQ Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The AVX AQ Series SMT Capacitors include 64 components, representing 4 case styles in 2 thermal ratings and 8 capacitance tolerances. The naming convention for these components is `sc_avx_AQ_<case style><temperature coefficient code>_<tolerance code>_<extraction date>`.

where:

MIL-C-55681/4 cross-referenced case style = CDR11, CDR12, CDR13, or CDR14
 temperature coefficient code =
 BG (P90 ± 20 ppm/ $^{\circ}$ C thermal coefficient over the range of -55 to $+125^{\circ}$ C)
 or BP (0 ± 30 ppm/ $^{\circ}$ C thermal coefficient over the range of -55 to $+125^{\circ}$ C)
 tolerance code = B (± 0.1 pF), C ($+0/-0.25$ pF), D (± 0.5 pF), F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).

case dimensions (length \times width) are:

CDR11: .055 inches \times .055 inches (chip)
 CDR12: .055 inches \times .055 inches (pellet)
 CDR13: .110 inches \times .110 inches (chip)
 CDR14: .110 inches \times .110 inches (pellet)

The schematic design model for the AVX AQ Series SMT capacitors is given by the CAPP2 model.

AVX AQ Series SMT Capacitors

Name	Description
sc_avx_ACCU-F_04031J_A_19960828	AVX ACCU-F Series, 0403 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 13 Parts: 0.1pF-1.8pF, +/-0.05pF
sc_avx_ACCU-F_04031J_B_19960828	AVX ACCU-F Series, 0403 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 13 Parts: 0.1pF-1.8pF, +/-0.1pF
sc_avx_ACCU-F_04031J_C_19960828	AVX ACCU-F Series, 0403 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 13 Parts: 0.1pF-1.8pF, +/-0.25pF
sc_avx_ACCU-F_04031K_A_19960828	AVX ACCU-F Series, 0403 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 16 Parts: 0.1pF-3.3pF, +/-0.05pF
sc_avx_ACCU-F_04031K_B_19960828	AVX ACCU-F Series, 0403 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 16 Parts: 0.1pF-3.3pF, +/-0.1pF
sc_avx_ACCU-F_04031K_C_19960828	AVX ACCU-F Series, 0403 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 16 Parts: 0.1pF-3.3pF, +/-0.25pF
sc_avx_ACCU-F_04035J_A_19960828	AVX ACCU-F Series, 0403 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-	AVX ACCU-F Series, 0403 Case, B Tolerance, 0 +/-30ppm/deg C (-55

F_04035J_B_19960828	to +125 deg C), 50V, 20 Parts: 0.1pF-6.8pF, +/-0.1pF
sc_avx_ACCU-F_04035J_C_19960828	AVX ACCU-F Series, 0403 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 20 Parts: 0.1pF-6.8pF, +/-0.25pF
sc_avx_ACCU-F_04035J_D_19960828	AVX ACCU-F Series, 0403 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 1 Parts: 6.8pF, +/-0.5pF
sc_avx_ACCU-F_04035K_A_19960828	AVX ACCU-F Series, 0403 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_04035K_B_19960828	AVX ACCU-F Series, 0403 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_04035K_C_19960828	AVX ACCU-F Series, 0403 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_04035K_D_19960828	AVX ACCU-F Series, 0403 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_04035K_F_19960828	AVX ACCU-F Series, 0403 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 10pF-12pF, +/-1%
sc_avx_ACCU-F_04035K_G_19960828	AVX ACCU-F Series, 0403 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 10pF-12pF, +/-2%
sc_avx_ACCU-F_04035K_J_19960828	AVX ACCU-F Series, 0403 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 10pF-12pF, +/-5%
sc_avx_ACCU-F_05041J_A_19960828	AVX ACCU-F Series, 0504 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 16 Parts: 0.1pF-3.3pF, +/-0.05pF
sc_avx_ACCU-F_05041J_B_19960828	AVX ACCU-F Series, 0504 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 16 Parts: 0.1pF-3.3pF, +/-0.1pF
sc_avx_ACCU-F_05041J_C_19960828	AVX ACCU-F Series, 0504 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 16 Parts: 0.1pF-3.3pF, +/-0.25pF
sc_avx_ACCU-F_05041K_A_19960828	AVX ACCU-F Series, 0504 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_05041K_B_19960828	AVX ACCU-F Series, 0504 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 20 Parts: 0.1pF-6.8pF, +/-0.1pF
sc_avx_ACCU-F_05041K_C_19960828	AVX ACCU-F Series, 0504 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 20 Parts: 0.1pF-6.8pF, +/-0.25pF
sc_avx_ACCU-F_05041K_D_19960828	AVX ACCU-F Series, 0504 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 1 Parts: 6.8pF, +/-0.5pF
sc_avx_ACCU-F_05045J_A_19960828	AVX ACCU-F Series, 0504 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_05045J_B_19960828	AVX ACCU-F Series, 0504 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_05045J_C_19960828	AVX ACCU-F Series, 0504 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_05045J_D_19960828	AVX ACCU-F Series, 0504 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_05045J_F_19960828	AVX ACCU-F Series, 0504 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 4 Parts: 10pF-18pF, +/-1%
sc_avx_ACCU-F_05045J_G_19960828	AVX ACCU-F Series, 0504 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 4 Parts: 10pF-18pF, +/-2%
sc_avx_ACCU-F_05045J_J_19960828	AVX ACCU-F Series, 0504 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 4 Parts: 10pF-18pF, +/-5%
sc_avx_ACCU-F_05045K_A_19960828	AVX ACCU-F Series, 0504 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-	AVX ACCU-F Series, 0504 Case, B Tolerance, 0 +/-60ppm/deg C (-55

F_05045K_B_19960828	to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_05045K_C_19960828	AVX ACCU-F Series, 0504 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_05045K_D_19960828	AVX ACCU-F Series, 0504 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_05045K_F_19960828	AVX ACCU-F Series, 0504 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 10pF-22pF, +/-1%
sc_avx_ACCU-F_05045K_G_19960828	AVX ACCU-F Series, 0504 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 10pF-22pF, +/-2%
sc_avx_ACCU-F_05045K_J_19960828	AVX ACCU-F Series, 0504 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 10pF-22pF, +/-5%
sc_avx_ACCU-F_06031J_A_19960828	AVX ACCU-F Series, 0603 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 17 Parts: 0.1pF-3.9pF, +/-0.05pF
sc_avx_ACCU-F_06031J_B_19960828	AVX ACCU-F Series, 0603 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 17 Parts: 0.1pF-3.9pF, +/-0.1pF
sc_avx_ACCU-F_06031J_C_19960828	AVX ACCU-F Series, 0603 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 17 Parts: 0.1pF-3.9pF, +/-0.25pF
sc_avx_ACCU-F_06031K_A_19960828	AVX ACCU-F Series, 0603 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_06031K_B_19960828	AVX ACCU-F Series, 0603 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 20 Parts: 0.1pF-6.8pF, +/-0.1pF
sc_avx_ACCU-F_06031K_C_19960828	AVX ACCU-F Series, 0603 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 20 Parts: 0.1pF-6.8pF, +/-0.25pF
sc_avx_ACCU-F_06031K_D_19960828	AVX ACCU-F Series, 0603 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 1 Parts: 6.8pF, +/-0.5pF
sc_avx_ACCU-F_06033K_A_19960828	AVX ACCU-F Series, 0603 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_06033K_B_19960828	AVX ACCU-F Series, 0603 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_06033K_C_19960828	AVX ACCU-F Series, 0603 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_06033K_D_19960828	AVX ACCU-F Series, 0603 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_06033K_F_19960828	AVX ACCU-F Series, 0603 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 7 Parts: 10pF-33pF, +/-1%
sc_avx_ACCU-F_06033K_G_19960828	AVX ACCU-F Series, 0603 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 7 Parts: 10pF-33pF, +/-2%
sc_avx_ACCU-F_06033K_J_19960828	AVX ACCU-F Series, 0603 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 7 Parts: 10pF-33pF, +/-5%
sc_avx_ACCU-F_06035J_A_19960828	AVX ACCU-F Series, 0603 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_06035J_B_19960828	AVX ACCU-F Series, 0603 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_06035J_C_19960828	AVX ACCU-F Series, 0603 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_06035J_D_19960828	AVX ACCU-F Series, 0603 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_06035J_F_19960828	AVX ACCU-F Series, 0603 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 3 Parts: 10pF-15pF, +/-1%
sc_avx_ACCU-	AVX ACCU-F Series, 0603 Case, G Tolerance, 0 +/-30ppm/deg C (-55

F_06035J_G_19960828	to +125 deg C), 50V, 3 Parts: 10pF-15pF, +/-2%
sc_avx_ACCU-F_06035J_J_19960828	AVX ACCU-F Series, 0603 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 3 Parts: 10pF-15pF, +/-5%
sc_avx_ACCU-F_06035K_A_19960828	AVX ACCU-F Series, 0603 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_06035K_B_19960828	AVX ACCU-F Series, 0603 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_06035K_C_19960828	AVX ACCU-F Series, 0603 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_06035K_D_19960828	AVX ACCU-F Series, 0603 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_06035K_F_19960828	AVX ACCU-F Series, 0603 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 10pF-22pF, +/-1%
sc_avx_ACCU-F_06035K_G_19960828	AVX ACCU-F Series, 0603 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 10pF-22pF, +/-2%
sc_avx_ACCU-F_06035K_J_19960828	AVX ACCU-F Series, 0603 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 10pF-22pF, +/-5%
sc_avx_ACCU-F_08051J_A_19960828	AVX ACCU-F Series, 0805 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_08051J_B_19960828	AVX ACCU-F Series, 0805 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_08051J_C_19960828	AVX ACCU-F Series, 0805 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_08051J_D_19960828	AVX ACCU-F Series, 0805 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_08051K_A_19960828	AVX ACCU-F Series, 0805 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_08051K_B_19960828	AVX ACCU-F Series, 0805 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_08051K_C_19960828	AVX ACCU-F Series, 0805 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_08051K_D_19960828	AVX ACCU-F Series, 0805 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_08051K_F_19960828	AVX ACCU-F Series, 0805 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 3 Parts: 10pF-15pF, +/-1%
sc_avx_ACCU-F_08051K_G_19960828	AVX ACCU-F Series, 0805 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 3 Parts: 10pF-15pF, +/-2%
sc_avx_ACCU-F_08051K_J_19960828	AVX ACCU-F Series, 0805 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 3 Parts: 10pF-15pF, +/-5%
sc_avx_ACCU-F_08053K_A_19960828	AVX ACCU-F Series, 0805 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_08053K_B_19960828	AVX ACCU-F Series, 0805 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_08053K_C_19960828	AVX ACCU-F Series, 0805 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_08053K_D_19960828	AVX ACCU-F Series, 0805 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_08053K_F_19960828	AVX ACCU-F Series, 0805 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 13 Parts: 10pF-100pF, +/-1%
sc_avx_ACCU-	AVX ACCU-F Series, 0805 Case, G Tolerance, 0 +/-60ppm/deg C (-55

F_08053K_G_19960828	to +125 deg C), 25V, 13 Parts: 10pF-100pF, +/-2%
sc_avx_ACCU-F_08053K_J_19960828	AVX ACCU-F Series, 0805 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 25V, 13 Parts: 10pF-100pF, +/-5%
sc_avx_ACCU-F_08055J_A_19960828	AVX ACCU-F Series, 0805 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_08055J_B_19960828	AVX ACCU-F Series, 0805 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_08055J_C_19960828	AVX ACCU-F Series, 0805 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_08055J_D_19960828	AVX ACCU-F Series, 0805 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_08055J_F_19960828	AVX ACCU-F Series, 0805 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-1%
sc_avx_ACCU-F_08055J_G_19960828	AVX ACCU-F Series, 0805 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-2%
sc_avx_ACCU-F_08055J_J_19960828	AVX ACCU-F Series, 0805 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-5%
sc_avx_ACCU-F_08055K_A_19960828	AVX ACCU-F Series, 0805 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_08055K_B_19960828	AVX ACCU-F Series, 0805 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_08055K_C_19960828	AVX ACCU-F Series, 0805 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_08055K_D_19960828	AVX ACCU-F Series, 0805 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_08055K_F_19960828	AVX ACCU-F Series, 0805 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 10 Parts: 10pF-56pF, +/-1%
sc_avx_ACCU-F_08055K_G_19960828	AVX ACCU-F Series, 0805 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 10 Parts: 10pF-56pF, +/-2%
sc_avx_ACCU-F_08055K_J_19960828	AVX ACCU-F Series, 0805 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 10 Parts: 10pF-56pF, +/-5%
sc_avx_ACCU-F_12061J_A_19960828	AVX ACCU-F Series, 1206 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_12061J_B_19960828	AVX ACCU-F Series, 1206 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_12061J_C_19960828	AVX ACCU-F Series, 1206 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_12061J_D_19960828	AVX ACCU-F Series, 1206 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_12061J_F_19960828	AVX ACCU-F Series, 1206 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 4 Parts: 10pF-18pF, +/-1%
sc_avx_ACCU-F_12061J_G_19960828	AVX ACCU-F Series, 1206 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 4 Parts: 10pF-18pF, +/-2%
sc_avx_ACCU-F_12061J_J_19960828	AVX ACCU-F Series, 1206 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 4 Parts: 10pF-18pF, +/-5%
sc_avx_ACCU-F_12061K_A_19960828	AVX ACCU-F Series, 1206 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_12061K_B_19960828	AVX ACCU-F Series, 1206 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-	AVX ACCU-F Series, 1206 Case, C Tolerance, 0 +/-60ppm/deg C (-55

F_12061K_C_19960828	to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_12061K_D_19960828	AVX ACCU-F Series, 1206 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_12061K_F_19960828	AVX ACCU-F Series, 1206 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 7 Parts: 10pF-33pF, +/-1%
sc_avx_ACCU-F_12061K_G_19960828	AVX ACCU-F Series, 1206 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 7 Parts: 10pF-33pF, +/-2%
sc_avx_ACCU-F_12061K_J_19960828	AVX ACCU-F Series, 1206 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 7 Parts: 10pF-33pF, +/-5%
sc_avx_ACCU-F_12065J_A_19960828	AVX ACCU-F Series, 1206 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_12065J_B_19960828	AVX ACCU-F Series, 1206 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_12065J_C_19960828	AVX ACCU-F Series, 1206 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_12065J_D_19960828	AVX ACCU-F Series, 1206 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_12065J_F_19960828	AVX ACCU-F Series, 1206 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 11 Parts: 10pF-68pF, +/-1%
sc_avx_ACCU-F_12065J_G_19960828	AVX ACCU-F Series, 1206 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 11 Parts: 10pF-68pF, +/-2%
sc_avx_ACCU-F_12065J_J_19960828	AVX ACCU-F Series, 1206 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 11 Parts: 10pF-68pF, +/-5%
sc_avx_ACCU-F_12065K_A_19960828	AVX ACCU-F Series, 1206 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-F_12065K_B_19960828	AVX ACCU-F Series, 1206 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-F_12065K_C_19960828	AVX ACCU-F Series, 1206 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-F_12065K_D_19960828	AVX ACCU-F Series, 1206 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-F_12065K_F_19960828	AVX ACCU-F Series, 1206 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 14 Parts: 10pF-120pF, +/-1%
sc_avx_ACCU-F_12065K_G_19960828	AVX ACCU-F Series, 1206 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 14 Parts: 10pF-120pF, +/-2%
sc_avx_ACCU-F_12065K_J_19960828	AVX ACCU-F Series, 1206 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 14 Parts: 10pF-120pF, +/-5%
sc_avx_ACCU-P_08051J_A_19960828	AVX ACCU-P Series, 0805 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_08051J_B_19960828	AVX ACCU-P Series, 0805 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 20 Parts: 0.1pF-6.8pF, +/-0.1pF
sc_avx_ACCU-P_08051J_C_19960828	AVX ACCU-P Series, 0805 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 20 Parts: 0.1pF-6.8pF, +/-0.25pF
sc_avx_ACCU-P_08051J_D_19960828	AVX ACCU-P Series, 0805 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 1 Parts: 6.8pF, +/-0.5pF
sc_avx_ACCU-P_08051K_A_19960828	AVX ACCU-P Series, 0805 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_08051K_B_19960828	AVX ACCU-P Series, 0805 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-	AVX ACCU-P Series, 0805 Case, C Tolerance, 0 +/-60ppm/deg C (-55

P_08051K_C_19960828	to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_08051K_D_19960828	AVX ACCU-P Series, 0805 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_08051K_F_19960828	AVX ACCU-P Series, 0805 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 10pF-12pF, +/-1%
sc_avx_ACCU-P_08051K_G_19960828	AVX ACCU-P Series, 0805 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 10pF-12pF, +/-2%
sc_avx_ACCU-P_08051K_J_19960828	AVX ACCU-P Series, 0805 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 10pF-12pF, +/-5%
sc_avx_ACCU-P_08055J_A_19960828	AVX ACCU-P Series, 0805 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_08055J_B_19960828	AVX ACCU-P Series, 0805 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_08055J_C_19960828	AVX ACCU-P Series, 0805 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_08055J_D_19960828	AVX ACCU-P Series, 0805 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_08055J_F_19960828	AVX ACCU-P Series, 0805 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 6 Parts: 10pF-27pF, +/-1%
sc_avx_ACCU-P_08055J_G_19960828	AVX ACCU-P Series, 0805 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 6 Parts: 10pF-27pF, +/-2%
sc_avx_ACCU-P_08055J_J_19960828	AVX ACCU-P Series, 0805 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 6 Parts: 10pF-27pF, +/-5%
sc_avx_ACCU-P_08055K_A_19960828	AVX ACCU-P Series, 0805 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_08055K_B_19960828	AVX ACCU-P Series, 0805 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_08055K_C_19960828	AVX ACCU-P Series, 0805 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_08055K_D_19960828	AVX ACCU-P Series, 0805 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_08055K_F_19960828	AVX ACCU-P Series, 0805 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-1%
sc_avx_ACCU-P_08055K_G_19960828	AVX ACCU-P Series, 0805 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-2%
sc_avx_ACCU-P_08055K_J_19960828	AVX ACCU-P Series, 0805 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 7 Parts: 10pF-33pF, +/-5%
sc_avx_ACCU-P_12101J_A_19960828	AVX ACCU-P Series, 1210 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_12101J_B_19960828	AVX ACCU-P Series, 1210 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_12101J_C_19960828	AVX ACCU-P Series, 1210 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_12101J_D_19960828	AVX ACCU-P Series, 1210 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_12101J_F_19960828	AVX ACCU-P Series, 1210 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 6 Parts: 10pF-27pF, +/-1%
sc_avx_ACCU-P_12101J_G_19960828	AVX ACCU-P Series, 1210 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 100V, 6 Parts: 10pF-27pF, +/-2%
sc_avx_ACCU-	AVX ACCU-P Series, 1210 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to

P_12101J_J_19960828	+125 deg C), 100V, 6 Parts: 10pF-27pF, +/-5%
sc_avx_ACCU-P_12101K_A_19960828	AVX ACCU-P Series, 1210 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_12101K_B_19960828	AVX ACCU-P Series, 1210 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_12101K_C_19960828	AVX ACCU-P Series, 1210 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_12101K_D_19960828	AVX ACCU-P Series, 1210 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_12101K_F_19960828	AVX ACCU-P Series, 1210 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 9 Parts: 10pF-47pF, +/-1%
sc_avx_ACCU-P_12101K_G_19960828	AVX ACCU-P Series, 1210 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 9 Parts: 10pF-47pF, +/-2%
sc_avx_ACCU-P_12101K_J_19960828	AVX ACCU-P Series, 1210 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 100V, 9 Parts: 10pF-47pF, +/-5%
sc_avx_ACCU-P_12105J_A_19960828	AVX ACCU-P Series, 1210 Case, A Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_12105J_B_19960828	AVX ACCU-P Series, 1210 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_12105J_C_19960828	AVX ACCU-P Series, 1210 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_12105J_D_19960828	AVX ACCU-P Series, 1210 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_12105J_F_19960828	AVX ACCU-P Series, 1210 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 12 Parts: 10pF-82pF, +/-1%
sc_avx_ACCU-P_12105J_G_19960828	AVX ACCU-P Series, 1210 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 12 Parts: 10pF-82pF, +/-2%
sc_avx_ACCU-P_12105J_J_19960828	AVX ACCU-P Series, 1210 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 50V, 12 Parts: 10pF-82pF, +/-5%
sc_avx_ACCU-P_12105K_A_19960828	AVX ACCU-P Series, 1210 Case, A Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 19 Parts: 0.1pF-5.6pF, +/-0.05pF
sc_avx_ACCU-P_12105K_B_19960828	AVX ACCU-P Series, 1210 Case, B Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.1pF
sc_avx_ACCU-P_12105K_C_19960828	AVX ACCU-P Series, 1210 Case, C Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 0.1pF-8.2pF, +/-0.25pF
sc_avx_ACCU-P_12105K_D_19960828	AVX ACCU-P Series, 1210 Case, D Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 2 Parts: 6.8pF-8.2pF, +/-0.5pF
sc_avx_ACCU-P_12105K_F_19960828	AVX ACCU-P Series, 1210 Case, F Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 13 Parts: 10pF-100pF, +/-1%
sc_avx_ACCU-P_12105K_G_19960828	AVX ACCU-P Series, 1210 Case, G Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 13 Parts: 10pF-100pF, +/-2%
sc_avx_ACCU-P_12105K_J_19960828	AVX ACCU-P Series, 1210 Case, J Tolerance, 0 +/-60ppm/deg C (-55 to +125 deg C), 50V, 13 Parts: 10pF-100pF, +/-5%
sc_avx_AQ_CDR11BG_B_19960828	AVX AQ Series, CDR11 Case, B Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_avx_AQ_CDR11BG_C_19960828	AVX AQ Series, CDR11 Case, C Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_avx_AQ_CDR11BG_D_19960828	AVX AQ Series, CDR11 Case, D Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_avx_AQ_CDR11BG_F_19960828	AVX AQ Series, CDR11 Case, F Tolerance, +90 +/-20ppm/deg C (-55

	to +125 deg C), 25 Parts: 10pF-100pF, +/-1%
sc_avx_AQ_CDR11BG_G_19960828	AVX AQ Series, CDR11 Case, G Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-2%
sc_avx_AQ_CDR11BG_J_19960828	AVX AQ Series, CDR11 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-5%
sc_avx_AQ_CDR11BG_K_19960828	AVX AQ Series, CDR11 Case, K Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-10%
sc_avx_AQ_CDR11BG_M_19960828	AVX AQ Series, CDR11 Case, M Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-20%
sc_avx_AQ_CDR11BP_B_19960828	AVX AQ Series, CDR11 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_avx_AQ_CDR11BP_C_19960828	AVX AQ Series, CDR11 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_avx_AQ_CDR11BP_D_19960828	AVX AQ Series, CDR11 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_avx_AQ_CDR11BP_F_19960828	AVX AQ Series, CDR11 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-1%
sc_avx_AQ_CDR11BP_G_19960828	AVX AQ Series, CDR11 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-2%
sc_avx_AQ_CDR11BP_J_19960828	AVX AQ Series, CDR11 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-5%
sc_avx_AQ_CDR11BP_K_19960828	AVX AQ Series, CDR11 Case, K Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-10%
sc_avx_AQ_CDR11BP_M_19960828	AVX AQ Series, CDR11 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-20%
sc_avx_AQ_CDR12BG_B_19960828	AVX AQ Series, CDR12 Case, B Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_avx_AQ_CDR12BG_C_19960828	AVX AQ Series, CDR12 Case, C Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_avx_AQ_CDR12BG_D_19960828	AVX AQ Series, CDR12 Case, D Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_avx_AQ_CDR12BG_F_19960828	AVX AQ Series, CDR12 Case, F Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-1%
sc_avx_AQ_CDR12BG_G_19960828	AVX AQ Series, CDR12 Case, G Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-2%
sc_avx_AQ_CDR12BG_J_19960828	AVX AQ Series, CDR12 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-5%
sc_avx_AQ_CDR12BG_K_19960828	AVX AQ Series, CDR12 Case, K Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-10%
sc_avx_AQ_CDR12BG_M_19960828	AVX AQ Series, CDR12 Case, M Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-20%
sc_avx_AQ_CDR12BP_B_19960828	AVX AQ Series, CDR12 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_avx_AQ_CDR12BP_C_19960828	AVX AQ Series, CDR12 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_avx_AQ_CDR12BP_D_19960828	AVX AQ Series, CDR12 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_avx_AQ_CDR12BP_F_19960828	AVX AQ Series, CDR12 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-1%
sc_avx_AQ_CDR12BP_G_19960828	AVX AQ Series, CDR12 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to

	+125 deg C), 49 Parts: 10pF-1nF, +/-2%
sc_avx_AQ_CDR12BP_J_19960828	AVX AQ Series, CDR12 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-5%
sc_avx_AQ_CDR12BP_K_19960828	AVX AQ Series, CDR12 Case, K Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-10%
sc_avx_AQ_CDR12BP_M_19960828	AVX AQ Series, CDR12 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-20%
sc_avx_AQ_CDR13BG_B_19960828	AVX AQ Series, CDR13 Case, B Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_avx_AQ_CDR13BG_C_19960828	AVX AQ Series, CDR13 Case, C Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_avx_AQ_CDR13BG_D_19960828	AVX AQ Series, CDR13 Case, D Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_avx_AQ_CDR13BG_F_19960828	AVX AQ Series, CDR13 Case, F Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-1%
sc_avx_AQ_CDR13BG_G_19960828	AVX AQ Series, CDR13 Case, G Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-2%
sc_avx_AQ_CDR13BG_J_19960828	AVX AQ Series, CDR13 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-5%
sc_avx_AQ_CDR13BG_K_19960828	AVX AQ Series, CDR13 Case, K Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-10%
sc_avx_AQ_CDR13BG_M_19960828	AVX AQ Series, CDR13 Case, M Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-20%
sc_avx_AQ_CDR13BP_B_19960828	AVX AQ Series, CDR13 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_avx_AQ_CDR13BP_C_19960828	AVX AQ Series, CDR13 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_avx_AQ_CDR13BP_D_19960828	AVX AQ Series, CDR13 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_avx_AQ_CDR13BP_F_19960828	AVX AQ Series, CDR13 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 67 Parts: 10pF-5.1nF, +/-1%
sc_avx_AQ_CDR13BP_G_19960828	AVX AQ Series, CDR13 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 67 Parts: 10pF-5.1nF, +/-2%
sc_avx_AQ_CDR13BP_J_19960828	AVX AQ Series, CDR13 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 71 Parts: 6.8pF-5.1nF, +/-5%
sc_avx_AQ_CDR13BP_K_19960828	AVX AQ Series, CDR13 Case, K Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 71 Parts: 6.8pF-5.1nF, +/-10%
sc_avx_AQ_CDR13BP_M_19960828	AVX AQ Series, CDR13 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 71 Parts: 6.8pF-5.1nF, +/-20%
sc_avx_AQ_CDR14BG_B_19960828	AVX AQ Series, CDR14 Case, B Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_avx_AQ_CDR14BG_C_19960828	AVX AQ Series, CDR14 Case, C Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_avx_AQ_CDR14BG_D_19960828	AVX AQ Series, CDR14 Case, D Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_avx_AQ_CDR14BG_F_19960828	AVX AQ Series, CDR14 Case, F Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-1%
sc_avx_AQ_CDR14BG_G_19960828	AVX AQ Series, CDR14 Case, G Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 49 Parts: 10pF-1nF, +/-2%
sc_avx_AQ_CDR14BG_J_19960828	AVX AQ Series, CDR14 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to

	+125 deg C), 53 Parts: 6.8pF-1nF, +/-5%
sc_avx_AQ_CDR14BG_K_19960828	AVX AQ Series, CDR14 Case, K Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-10%
sc_avx_AQ_CDR14BG_M_19960828	AVX AQ Series, CDR14 Case, M Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 53 Parts: 6.8pF-1nF, +/-20%
sc_avx_AQ_CDR14BP_B_19960828	AVX AQ Series, CDR14 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_avx_AQ_CDR14BP_C_19960828	AVX AQ Series, CDR14 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_avx_AQ_CDR14BP_D_19960828	AVX AQ Series, CDR14 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_avx_AQ_CDR14BP_F_19960828	AVX AQ Series, CDR14 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 67 Parts: 10pF-5.1nF, +/-1%
sc_avx_AQ_CDR14BP_G_19960828	AVX AQ Series, CDR14 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 67 Parts: 10pF-5.1nF, +/-2%
sc_avx_AQ_CDR14BP_J_19960828	AVX AQ Series, CDR14 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 71 Parts: 6.8pF-5.1nF, +/-5%
sc_avx_AQ_CDR14BP_K_19960828	AVX AQ Series, CDR14 Case, K Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 71 Parts: 6.8pF-5.1nF, +/-10%
sc_avx_AQ_CDR14BP_M_19960828	AVX AQ Series, CDR14 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 71 Parts: 6.8pF-5.1nF, +/-20%

Dielectric Labs C11 Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Dielectric Labs C11 Series SMT Capacitors include 48 components, representing 2 case styles in 3 thermal ratings and 8 capacitance tolerances. The naming convention for these components is *sc_dli_C11_<case style><temperature coefficient code>_<tolerance code>_<extraction date>*.

where:

MIL-C-55681/4 cross-referenced case style = CDR11 or CDR12
 temperature coefficient code =
 BG (P90 ±20 ppm/°C thermal coefficient over the range of –55 to +125°C),
 BP (0 ±30 ppm/°C thermal coefficient over the range of –55 to +125°C)
 or CF (0 ±15 ppm/°C thermal coefficient over the range of –55 to +125°C)



Note

CF coded components are not MIL-C-55681/4 QPL cross-referenced, and the CF code refers merely to the DLI dielectric material designation.

tolerance code = B (±0.1 pF), C (+0/–0.25 pF), D (±0.5 pF), F (±1%), G (±2%), J (±5%), K (±10%), or M (±20%)

The default electrical models for these capacitors are based on edge-mounted configuration.

case dimensions (length × width) in edge-mounted configuration are:

CDR11: .055 inches × .043 inches (chip)

CDR12: .055 inches × .043 inches (pellet)

case dimensions (length × width) in flat-mounted configuration are:

CDR11: .055 inches × .050 inches (chip)

CDR12: .055 inches × .050 inches (pellet)

The schematic design model for the Dielectric Labs C11 Series SMT capacitors is given by the Dielectric Labs C11 and C17 Capacitors model.

Dielectric Labs C11 Series SMT Capacitors

Name	Description
sc_dli_C11_CDR11BG_B_19960828	Dielectric Labs C11 Series, CDR11 Case, B Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_dli_C11_CDR11BG_C_19960828	Dielectric Labs C11 Series, CDR11 Case, C Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_dli_C11_CDR11BG_D_19960828	Dielectric Labs C11 Series, CDR11 Case, D Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_dli_C11_CDR11BG_F_19960828	Dielectric Labs C11 Series, CDR11 Case, F Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-1%
sc_dli_C11_CDR11BG_G_19960828	Dielectric Labs C11 Series, CDR11 Case, G Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-2%
sc_dli_C11_CDR11BG_J_19960828	Dielectric Labs C11 Series, CDR11 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-5%
sc_dli_C11_CDR11BG_K_19960828	Dielectric Labs C11 Series, CDR11 Case, K Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-10%
sc_dli_C11_CDR11BG_M_19960828	Dielectric Labs C11 Series, CDR11 Case, M Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-20%
sc_dli_C11_CDR11BP_B_19960828	Dielectric Labs C11 Series, CDR11 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_dli_C11_CDR11BP_C_19960828	Dielectric Labs C11 Series, CDR11 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_dli_C11_CDR11BP_D_19960828	Dielectric Labs C11 Series, CDR11 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_dli_C11_CDR11BP_F_19960828	Dielectric Labs C11 Series, CDR11 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-1%
sc_dli_C11_CDR11BP_G_19960828	Dielectric Labs C11 Series, CDR11 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-2%
sc_dli_C11_CDR11BP_J_19960828	Dielectric Labs C11 Series, CDR11 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-5%
sc_dli_C11_CDR11BP_K_19960828	Dielectric Labs C11 Series, CDR11 Case, K Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-10%
sc_dli_C11_CDR11BP_M_19960828	Dielectric Labs C11 Series, CDR11 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-20%
sc_dli_C11_CDR11CF_B_19960828	Dielectric Labs C11 Series, CDR11 Case, B Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_dli_C11_CDR11CF_C_19960828	Dielectric Labs C11 Series, CDR11 Case, C Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF

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sc_dli_C11_CDR11CF_D_19960828	Dielectric Labs C11 Series, CDR11 Case, D Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_dli_C11_CDR11CF_F_19960828	Dielectric Labs C11 Series, CDR11 Case, F Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-1%
sc_dli_C11_CDR11CF_G_19960828	Dielectric Labs C11 Series, CDR11 Case, G Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-2%
sc_dli_C11_CDR11CF_J_19960828	Dielectric Labs C11 Series, CDR11 Case, J Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-5%
sc_dli_C11_CDR11CF_K_19960828	Dielectric Labs C11 Series, CDR11 Case, K Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-10%
sc_dli_C11_CDR11CF_M_19960828	Dielectric Labs C11 Series, CDR11 Case, M Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-20%
sc_dli_C11_CDR12BG_B_19960828	Dielectric Labs C11 Series, CDR12 Case, B Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_dli_C11_CDR12BG_C_19960828	Dielectric Labs C11 Series, CDR12 Case, C Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_dli_C11_CDR12BG_D_19960828	Dielectric Labs C11 Series, CDR12 Case, D Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_dli_C11_CDR12BG_F_19960828	Dielectric Labs C11 Series, CDR12 Case, F Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-1%
sc_dli_C11_CDR12BG_G_19960828	Dielectric Labs C11 Series, CDR12 Case, G Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-2%
sc_dli_C11_CDR12BG_J_19960828	Dielectric Labs C11 Series, CDR12 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-5%
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sc_dli_C11_CDR12BP_B_19960828	Dielectric Labs C11 Series, CDR12 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_dli_C11_CDR12BP_C_19960828	Dielectric Labs C11 Series, CDR12 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_dli_C11_CDR12BP_D_19960828	Dielectric Labs C11 Series, CDR12 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
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sc_dli_C11_CDR12BP_M_19960828	Dielectric Labs C11 Series, CDR12 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-20%
sc_dli_C11_CDR12CF_B_19960828	Dielectric Labs C11 Series, CDR12 Case, B Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_dli_C11_CDR12CF_C_19960828	Dielectric Labs C11 Series, CDR12 Case, C Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_dli_C11_CDR12CF_D_19960828	Dielectric Labs C11 Series, CDR12 Case, D Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF

Advanced Design System 2011.01 - Vendor Component Libraries - RF Passive SMT Library

sc_dli_C11_CDR12CF_F_19960828	Dielectric Labs C11 Series, CDR12 Case, F Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-1%
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sc_dli_C11_CDR12CF_M_19960828	Dielectric Labs C11 Series, CDR12 Case, M Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-20%
sc_dli_C17_CDR13BG_B_19960828	Dielectric Labs C17 Series, CDR13 Case, B Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 76 Parts: 0.1pF-390pF, +/-0.1pF
sc_dli_C17_CDR13BG_C_19960828	Dielectric Labs C17 Series, CDR13 Case, C Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 74 Parts: 0.3pF-390pF, +/-0.25pF
sc_dli_C17_CDR13BG_D_19960828	Dielectric Labs C17 Series, CDR13 Case, D Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 72 Parts: 0.5pF-390pF, +/-0.5pF
sc_dli_C17_CDR13BG_F_19960828	Dielectric Labs C17 Series, CDR13 Case, F Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 61 Parts: 10pF-3.9nF, +/-1%
sc_dli_C17_CDR13BG_G_19960828	Dielectric Labs C17 Series, CDR13 Case, G Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 61 Parts: 10pF-3.9nF, +/-2%
sc_dli_C17_CDR13BG_J_19960828	Dielectric Labs C17 Series, CDR13 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-5%
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sc_dli_C17_CDR13BP_B_19960828	Dielectric Labs C17 Series, CDR13 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 76 Parts: 0.1pF-390pF, +/-0.1pF
sc_dli_C17_CDR13BP_C_19960828	Dielectric Labs C17 Series, CDR13 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 74 Parts: 0.3pF-390pF, +/-0.25pF
sc_dli_C17_CDR13BP_D_19960828	Dielectric Labs C17 Series, CDR13 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 72 Parts: 0.5pF-390pF, +/-0.5pF
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sc_dli_C17_CDR13BP_J_19960828	Dielectric Labs C17 Series, CDR13 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-5%
sc_dli_C17_CDR13BP_K_19960828	Dielectric Labs C17 Series, CDR13 Case, K Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-10%
sc_dli_C17_CDR13BP_M_19960828	Dielectric Labs C17 Series, CDR13 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-20%
sc_dli_C17_CDR14BG_B_19960828	Dielectric Labs C17 Series, CDR14 Case, B Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 76 Parts: 0.1pF-390pF, +/-0.1pF
sc_dli_C17_CDR14BG_C_19960828	Dielectric Labs C17 Series, CDR14 Case, C Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 74 Parts: 0.3pF-390pF, +/-0.25pF
sc_dli_C17_CDR14BG_D_19960828	Dielectric Labs C17 Series, CDR14 Case, D Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 72 Parts: 0.5pF-390pF, +/-0.5pF
sc_dli_C17_CDR14BG_F_19960828	Dielectric Labs C17 Series, CDR14 Case, F Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 47 Parts: 10pF-1nF, +/-1%

sc_dli_C17_CDR14BG_G_19960828	Dielectric Labs C17 Series, CDR14 Case, G Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 47 Parts: 10pF-1nF, +/-2%
sc_dli_C17_CDR14BG_J_19960828	Dielectric Labs C17 Series, CDR14 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-5%
sc_dli_C17_CDR14BG_K_19960828	Dielectric Labs C17 Series, CDR14 Case, K Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-10%
sc_dli_C17_CDR14BG_M_19960828	Dielectric Labs C17 Series, CDR14 Case, M Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-20%
sc_dli_C17_CDR14BP_B_19960828	Dielectric Labs C17 Series, CDR14 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 76 Parts: 0.1pF-390pF, +/-0.1pF
sc_dli_C17_CDR14BP_C_19960828	Dielectric Labs C17 Series, CDR14 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 74 Parts: 0.3pF-390pF, +/-0.25pF
sc_dli_C17_CDR14BP_D_19960828	Dielectric Labs C17 Series, CDR14 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 72 Parts: 0.5pF-390pF, +/-0.5pF
sc_dli_C17_CDR14BP_F_19960828	Dielectric Labs C17 Series, CDR14 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 61 Parts: 10pF-3.9nF, +/-1%
sc_dli_C17_CDR14BP_G_19960828	Dielectric Labs C17 Series, CDR14 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 61 Parts: 10pF-3.9nF, +/-2%
sc_dli_C17_CDR14BP_J_19960828	Dielectric Labs C17 Series, CDR14 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-5%
sc_dli_C17_CDR14BP_K_19960828	Dielectric Labs C17 Series, CDR14 Case, K Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-10%
sc_dli_C17_CDR14BP_M_19960828	Dielectric Labs C17 Series, CDR14 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-20%

Dielectric Labs C17 Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Dielectric Labs C17 Series SMT Capacitors include 32 components, representing 2 case styles in 2 thermal ratings and 8 capacitance tolerances. The naming convention for these components is *sc_dli_C17_<case style><temperature coefficient code>_<tolerance code>_<extraction date>*.

where:

MIL-C-55681/4 cross-referenced case style = CDR13 or CDR14
 temperature coefficient code =

BG (P90 ± 20 ppm/ $^{\circ}$ C thermal coefficient over the range of -55 to $+125^{\circ}$ C)
 or BP (0 ± 30 ppm/ $^{\circ}$ C thermal coefficient over the range of -55 to $+125^{\circ}$ C)
 tolerance code = B (± 0.1 pF), C ($+0/ -0.25$ pF), D (± 0.5 pF), F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$)

The default electrical models for these capacitors are based on edge-mounted configuration.

case dimensions (length \times width) in edge-mounted configuration are:

CDR13: .110 inches × .083 inches (chip)

CDR14: .110 inches × .083 inches (pellet)

case dimensions (length × width) in flat-mounted configuration are:

CDR13: .110 inches × .100 inches (chip)

CDR14: .110 inches × .100 inches (pellet)

The schematic design model for the Dielectric Labs C17 Series SMT capacitors is given by the Dielectric Labs. C11 and C17 Capacitors' model.

Dielectric Labs C17 Series SMT Capacitors

Name	Description
sc_dli_C11_CDR11BG_B_19960828	Dielectric Labs C11 Series, CDR11 Case, B Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_dli_C11_CDR11BG_C_19960828	Dielectric Labs C11 Series, CDR11 Case, C Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_dli_C11_CDR11BG_D_19960828	Dielectric Labs C11 Series, CDR11 Case, D Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_dli_C11_CDR11BG_F_19960828	Dielectric Labs C11 Series, CDR11 Case, F Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-1%
sc_dli_C11_CDR11BG_G_19960828	Dielectric Labs C11 Series, CDR11 Case, G Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-2%
sc_dli_C11_CDR11BG_J_19960828	Dielectric Labs C11 Series, CDR11 Case, J Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-5%
sc_dli_C11_CDR11BG_K_19960828	Dielectric Labs C11 Series, CDR11 Case, K Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-10%
sc_dli_C11_CDR11BG_M_19960828	Dielectric Labs C11 Series, CDR11 Case, M Tolerance, +90 +/- 20ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-20%
sc_dli_C11_CDR11BP_B_19960828	Dielectric Labs C11 Series, CDR11 Case, B Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_dli_C11_CDR11BP_C_19960828	Dielectric Labs C11 Series, CDR11 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_dli_C11_CDR11BP_D_19960828	Dielectric Labs C11 Series, CDR11 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_dli_C11_CDR11BP_F_19960828	Dielectric Labs C11 Series, CDR11 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-1%
sc_dli_C11_CDR11BP_G_19960828	Dielectric Labs C11 Series, CDR11 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-2%
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sc_dli_C11_CDR11CF_B_19960828	Dielectric Labs C11 Series, CDR11 Case, B Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_dli_C11_CDR11CF_C_19960828	Dielectric Labs C11 Series, CDR11 Case, C Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF

Advanced Design System 2011.01 - Vendor Component Libraries - RF Passive SMT Library

sc_dli_C11_CDR11CF_D_19960828	Dielectric Labs C11 Series, CDR11 Case, D Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_dli_C11_CDR11CF_F_19960828	Dielectric Labs C11 Series, CDR11 Case, F Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-1%
sc_dli_C11_CDR11CF_G_19960828	Dielectric Labs C11 Series, CDR11 Case, G Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-2%
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sc_dli_C11_CDR11CF_M_19960828	Dielectric Labs C11 Series, CDR11 Case, M Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-20%
sc_dli_C11_CDR12BG_B_19960828	Dielectric Labs C11 Series, CDR12 Case, B Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
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sc_dli_C11_CDR12BG_D_19960828	Dielectric Labs C11 Series, CDR12 Case, D Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_dli_C11_CDR12BG_F_19960828	Dielectric Labs C11 Series, CDR12 Case, F Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-1%
sc_dli_C11_CDR12BG_G_19960828	Dielectric Labs C11 Series, CDR12 Case, G Tolerance, +90 +/-20ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-2%
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sc_dli_C11_CDR12BP_C_19960828	Dielectric Labs C11 Series, CDR12 Case, C Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_dli_C11_CDR12BP_D_19960828	Dielectric Labs C11 Series, CDR12 Case, D Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_dli_C11_CDR12BP_F_19960828	Dielectric Labs C11 Series, CDR12 Case, F Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-1%
sc_dli_C11_CDR12BP_G_19960828	Dielectric Labs C11 Series, CDR12 Case, G Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-2%
sc_dli_C11_CDR12BP_J_19960828	Dielectric Labs C11 Series, CDR12 Case, J Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-5%
sc_dli_C11_CDR12BP_K_19960828	Dielectric Labs C11 Series, CDR12 Case, K Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-10%
sc_dli_C11_CDR12BP_M_19960828	Dielectric Labs C11 Series, CDR12 Case, M Tolerance, 0 +/-30ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-20%
sc_dli_C11_CDR12CF_B_19960828	Dielectric Labs C11 Series, CDR12 Case, B Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_dli_C11_CDR12CF_C_19960828	Dielectric Labs C11 Series, CDR12 Case, C Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_dli_C11_CDR12CF_D_19960828	Dielectric Labs C11 Series, CDR12 Case, D Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF

sc_dli_C11_CDR12CF_F_19960828	Dielectric Labs C11 Series, CDR12 Case, F Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-1%
sc_dli_C11_CDR12CF_G_19960828	Dielectric Labs C11 Series, CDR12 Case, G Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 39 Parts: 10pF-390pF, +/-2%
sc_dli_C11_CDR12CF_J_19960828	Dielectric Labs C11 Series, CDR12 Case, J Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-5%
sc_dli_C11_CDR12CF_K_19960828	Dielectric Labs C11 Series, CDR12 Case, K Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-10%
sc_dli_C11_CDR12CF_M_19960828	Dielectric Labs C11 Series, CDR12 Case, M Tolerance, 0 +/-15ppm/deg C (-55 to +125 deg C), 43 Parts: 6.8pF-390pF, +/-20%

Kemet C0G Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Kemet C0G Series devices are used in cellular communications, base stations, and pager equipment.

The Kemet C0G Series SMT Capacitors include 40 components, representing 3 case styles, 2 voltage ratings, and 8 capacitance tolerances. The naming convention for these components is *sc_kmt_C0G_<case style><voltage code>_<tolerance code>_<extraction date>*.

where:

case style = 0603, 0805, or 1206

voltage code = 1(100V) or 5(50V)

tolerance code = C (± 0.25 pF), D (0.5 pF), F ($\pm 1\%$), G ($\pm 2\%$), H ($\pm 3\%$), J ($\pm 5\%$), K ($\pm 10\%$), and M ($\pm 20\%$)

thermal coefficient = C0G (0 ± 30 ppm/ $^{\circ}$ C thermal coefficient over the temperature range of -55 to 125° C)

case dimensions (length \times width) are:

0603: .063 inches \times .032 inches

0805: .078 inches \times .049 inches

1206: .126 inches \times .063 inches

The schematic design model for the Kemet C0G Series SMT capacitors is given by the Kemet C0G Ceramic Capacitor model. This model can be simulated only on a circuit simulator.

Kemet C0G Series SMT Capacitors

Name	Description
sc_kmt_C0G_06035_C_19960828	Kemet C0G Series, 0603 Case, C Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 17 Parts: 1pF-22pF, +/-0.25pF
sc_kmt_C0G_06035_D_19960828	Kemet C0G Series, 0603 Case, D Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 1pF-47pF, +/-0.5pF

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sc_kmt_C0G_06035_F_19960828	Kemet C0G Series, 0603 Case, F Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 12 Parts: 27pF-220pF, +/-1%
sc_kmt_C0G_06035_G_19960828	Kemet C0G Series, 0603 Case, G Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 15 Parts: 15pF-220pF, +/-2%
sc_kmt_C0G_06035_H_19960828	Kemet C0G Series, 0603 Case, H Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 17 Parts: 10pF-220pF, +/-3%
sc_kmt_C0G_06035_J_19960828	Kemet C0G Series, 0603 Case, J Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 20 Parts: 5.6pF-220pF, +/-5%
sc_kmt_C0G_06035_K_19960828	Kemet C0G Series, 0603 Case, K Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 24 Parts: 2.7pF-220pF, +/-10%
sc_kmt_C0G_06035_M_19960828	Kemet C0G Series, 0603 Case, M Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 27 Parts: 1.5pF-220pF, +/-20%
sc_kmt_C0G_08051_C_19960828	Kemet C0G Series, 0805 Case, C Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 17 Parts: 1pF-22pF, +/-0.25pF
sc_kmt_C0G_08051_D_19960828	Kemet C0G Series, 0805 Case, D Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 1pF-47pF, +/-0.5pF
sc_kmt_C0G_08051_F_19960828	Kemet C0G Series, 0805 Case, F Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 19 Parts: 27pF-1nF, +/-1%
sc_kmt_C0G_08051_G_19960828	Kemet C0G Series, 0805 Case, G Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 22 Parts: 15pF-1nF, +/-2%
sc_kmt_C0G_08051_H_19960828	Kemet C0G Series, 0805 Case, H Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 24 Parts: 10pF-1nF, +/-3%
sc_kmt_C0G_08051_J_19960828	Kemet C0G Series, 0805 Case, J Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 27 Parts: 5.6pF-1nF, +/-5%
sc_kmt_C0G_08051_K_19960828	Kemet C0G Series, 0805 Case, K Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 31 Parts: 2.7pF-1nF, +/-10%
sc_kmt_C0G_08051_M_19960828	Kemet C0G Series, 0805 Case, M Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 34 Parts: 1.5pF-1nF, +/-20%
sc_kmt_C0G_08055_C_19960828	Kemet C0G Series, 0805 Case, C Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 17 Parts: 1pF-22pF, +/-0.25pF
sc_kmt_C0G_08055_D_19960828	Kemet C0G Series, 0805 Case, D Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 1pF-47pF, +/-0.5pF
sc_kmt_C0G_08055_F_19960828	Kemet C0G Series, 0805 Case, F Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 27pF-1.5nF, +/-1%
sc_kmt_C0G_08055_G_19960828	Kemet C0G Series, 0805 Case, G Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 24 Parts: 15pF-1.5nF, +/-2%
sc_kmt_C0G_08055_H_19960828	Kemet C0G Series, 0805 Case, H Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 26 Parts: 10pF-1.5nF, +/-3%
sc_kmt_C0G_08055_J_19960828	Kemet C0G Series, 0805 Case, J Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 29 Parts: 5.6pF-1.5nF, +/-5%
sc_kmt_C0G_08055_K_19960828	Kemet C0G Series, 0805 Case, K Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 33 Parts: 2.7pF-1.5nF, +/-10%
sc_kmt_C0G_08055_M_19960828	Kemet C0G Series, 0805 Case, M Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 36 Parts: 1.5pF-1.5nF, +/-20%
sc_kmt_C0G_12061_C_19960828	Kemet C0G Series, 1206 Case, C Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 17 Parts: 1pF-22pF, +/-0.25pF
sc_kmt_C0G_12061_D_19960828	Kemet C0G Series, 1206 Case, D Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 21 Parts: 1pF-47pF, +/-0.5pF
sc_kmt_C0G_12061_F_19960828	Kemet C0G Series, 1206 Case, F Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 26 Parts: 27pF-3.9nF, +/-1%

sc_kmt_C0G_12061_G_19960828	Kemet C0G Series, 1206 Case, G Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 29 Parts: 15pF-3.9nF, +/-2%
sc_kmt_C0G_12061_H_19960828	Kemet C0G Series, 1206 Case, H Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 31 Parts: 10pF-3.9nF, +/-3%
sc_kmt_C0G_12061_J_19960828	Kemet C0G Series, 1206 Case, J Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 34 Parts: 5.6pF-3.9nF, +/-5%
sc_kmt_C0G_12061_K_19960828	Kemet C0G Series, 1206 Case, K Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 38 Parts: 2.7pF-3.9nF, +/-10%
sc_kmt_C0G_12061_M_19960828	Kemet C0G Series, 1206 Case, M Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 100V, 41 Parts: 1.5pF-3.9nF, +/-20%
sc_kmt_C0G_12065_C_19960828	Kemet C0G Series, 1206 Case, C Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 17 Parts: 1pF-22pF, +/-0.25pF
sc_kmt_C0G_12065_D_19960828	Kemet C0G Series, 1206 Case, D Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 21 Parts: 1pF-47pF, +/-0.5pF
sc_kmt_C0G_12065_F_19960828	Kemet C0G Series, 1206 Case, F Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 27 Parts: 27pF-4.7nF, +/-1%
sc_kmt_C0G_12065_G_19960828	Kemet C0G Series, 1206 Case, G Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 30 Parts: 15pF-4.7nF, +/-2%
sc_kmt_C0G_12065_H_19960828	Kemet C0G Series, 1206 Case, H Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 32 Parts: 10pF-4.7nF, +/-3%
sc_kmt_C0G_12065_J_19960828	Kemet C0G Series, 1206 Case, J Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 35 Parts: 5.6pF-4.7nF, +/-5%
sc_kmt_C0G_12065_K_19960828	Kemet C0G Series, 1206 Case, K Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 39 Parts: 2.7pF-4.7nF, +/-10%
sc_kmt_C0G_12065_M_19960828	Kemet C0G Series, 1206 Case, M Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 42 Parts: 1.5pF-4.7nF, +/-20%

Kemet X7R Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Kemet X7R Series devices are used in cellular communications, base stations, and pager equipment.

The Kemet X7R Series SMT Capacitors include 15 components, representing 3 case styles, 2 voltage ratings, and 3 capacitance tolerances. The naming convention for these components is *sc_kmt_X7R_<case style><voltage code>_<tolerance code>_<extraction date>*.

where:

case style = 0603, 0805, or 1206

voltage code = 1(100V) or 5(50V)

tolerance code = J ($\pm 5\%$), K ($\pm 10\%$), and M ($\pm 20\%$)

thermal coefficient = X7R ($\pm 15\%$ thermal coefficient over the temperature range of -55 to 125°C)

case dimensions (length \times width) are:

0603: .063 inches × .032 inches

0805: .078 inches × .049 inches

1206: .126 inches × .063 inches

The schematic design model for the Kemet X7R Series SMT capacitors is given by the Kemet X7R Ceramic Capacitor model. This model can be simulated only on a circuit simulator.

Kemet X7R Series SMT Capacitors

Name	Description
sc_kmt_X7R_06035_J_19960828	Kemet X7R Series, 0603 Case, J Tolerance, +/-15% (-55 to +125 deg C), 50V, 21 Parts: 220pF-10nF, +/-5%
sc_kmt_X7R_06035_K_19960828	Kemet X7R Series, 0603 Case, K Tolerance, +/-15% (-55 to +125 deg C), 50V, 21 Parts: 220pF-10nF, +/-10%
sc_kmt_X7R_06035_M_19960828	Kemet X7R Series, 0603 Case, M Tolerance, +/-15% (-55 to +125 deg C), 50V, 21 Parts: 220pF-10nF, +/-20%
sc_kmt_X7R_08051_J_19960828	Kemet X7R Series, 0805 Case, J Tolerance, +/-15% (-55 to +125 deg C), 100V, 21 Parts: 220pF-10nF, +/-5%
sc_kmt_X7R_08051_K_19960828	Kemet X7R Series, 0805 Case, K Tolerance, +/-15% (-55 to +125 deg C), 100V, 21 Parts: 220pF-10nF, +/-10%
sc_kmt_X7R_08051_M_19960828	Kemet X7R Series, 0805 Case, M Tolerance, +/-15% (-55 to +125 deg C), 100V, 21 Parts: 220pF-10nF, +/-20%
sc_kmt_X7R_08055_J_19960828	Kemet X7R Series, 0805 Case, J Tolerance, +/-15% (-55 to +125 deg C), 50V, 33 Parts: 220pF-100nF, +/-5%
sc_kmt_X7R_08055_K_19960828	Kemet X7R Series, 0805 Case, K Tolerance, +/-15% (-55 to +125 deg C), 50V, 33 Parts: 220pF-100nF, +/-10%
sc_kmt_X7R_08055_M_19960828	Kemet X7R Series, 0805 Case, M Tolerance, +/-15% (-55 to +125 deg C), 50V, 33 Parts: 220pF-100nF, +/-20%
sc_kmt_X7R_12061_J_19960828	Kemet X7R Series, 1206 Case, J Tolerance, +/-15% (-55 to +125 deg C), 100V, 21 Parts: 1nF-47nF, +/-5%
sc_kmt_X7R_12061_K_19960828	Kemet X7R Series, 1206 Case, K Tolerance, +/-15% (-55 to +125 deg C), 100V, 21 Parts: 1nF-47nF, +/-10%
sc_kmt_X7R_12061_M_19960828	Kemet X7R Series, 1206 Case, M Tolerance, +/-15% (-55 to +125 deg C), 100V, 21 Parts: 1nF-47nF, +/-20%
sc_kmt_X7R_12065_J_19960828	Kemet X7R Series, 1206 Case, J Tolerance, +/-15% (-55 to +125 deg C), 50V, 29 Parts: 1nF-220nF, +/-5%
sc_kmt_X7R_12065_K_19960828	Kemet X7R Series, 1206 Case, K Tolerance, +/-15% (-55 to +125 deg C), 50V, 29 Parts: 1nF-220nF, +/-10%
sc_kmt_X7R_12065_M_19960828	Kemet X7R Series, 1206 Case, M Tolerance, +/-15% (-55 to +125 deg C), 50V, 29 Parts: 1nF-220nF, +/-20%

Microelectronics MPR1 Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Microelectronics MPR1 Series SMT Capacitors include 32 components, representing 4 case styles and 8 capacitance tolerances. The naming convention for these components is

sc_mel_MPR1_<case style>_<tolerance code>_<extraction date>.

where:

MIL-C-55681/4 cross referenced case style = 1C, 1P, 2C, and 2P

where:

C termination refers to the chip case style

P termination refers to solder coated pellet case style

tolerance code = B (± 0.1 pF), C ($+0/-0.25$ pF), D (± 0.5 pF), F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$)

thermal coefficient = BG (90 ± 20 ppm/ $^{\circ}$ C thermal coefficient over the temperature range of -55 to 125° C)

case dimensions (length \times width) are:

1C: (0.055 ± 0.015) inches \times (0.055 ± 0.015) inches chip

1P: (0.055 ± 0.025) inches \times (0.055 ± 0.015) inches pellet

2C: (0.110 ± 0.020) inches \times (0.110 ± 0.020) inches chip

2P: ($0.110 +0.035/-0.020$) inches \times (0.110 ± 0.020) inches pellet

The schematic design model for the Microelectronics MPR1 Series SMT capacitors is given by the CAPP2 model.

Microelectronics MPR1 Series SMT Capacitors

Name	Description
sc_mel_MPR1_1C_B_19960828	Microelectronics MPR1 Series, 1C Case, B Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 35 Parts: 0.2pF-9.1pF, +/-0.1pF
sc_mel_MPR1_1C_C_19960828	Microelectronics MPR1 Series, 1C Case, C Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 34 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_mel_MPR1_1C_D_19960828	Microelectronics MPR1 Series, 1C Case, D Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 28 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_mel_MPR1_1C_F_19960828	Microelectronics MPR1 Series, 1C Case, F Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-1%
sc_mel_MPR1_1C_G_19960828	Microelectronics MPR1 Series, 1C Case, G Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-2%
sc_mel_MPR1_1C_J_19960828	Microelectronics MPR1 Series, 1C Case, J Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-5%
sc_mel_MPR1_1C_K_19960828	Microelectronics MPR1 Series, 1C Case, K Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-10%
sc_mel_MPR1_1C_M_19960828	Microelectronics MPR1 Series, 1C Case, M Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-20%
sc_mel_MPR1_1P_B_19960828	Microelectronics MPR1 Series, 1P Case, B Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 35 Parts: 0.2pF-9.1pF, +/-0.1pF
sc_mel_MPR1_1P_C_19960828	Microelectronics MPR1 Series, 1P Case, C Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 34 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_mel_MPR1_1P_D_19960828	Microelectronics MPR1 Series, 1P Case, D Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 28 Parts: 0.5pF-6.2pF, +/-0.5pF

sc_mel_MPR1_1P_F_19960828	Microelectronics MPR1 Series, 1P Case, F Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-1%
sc_mel_MPR1_1P_G_19960828	Microelectronics MPR1 Series, 1P Case, G Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-2%
sc_mel_MPR1_1P_J_19960828	Microelectronics MPR1 Series, 1P Case, J Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-5%
sc_mel_MPR1_1P_K_19960828	Microelectronics MPR1 Series, 1P Case, K Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-10%
sc_mel_MPR1_1P_M_19960828	Microelectronics MPR1 Series, 1P Case, M Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-20%
sc_mel_MPR1_2C_B_19960828	Microelectronics MPR1 Series, 2C Case, B Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 36 Parts: 0.2pF-9.1pF, +/-0.1pF
sc_mel_MPR1_2C_C_19960828	Microelectronics MPR1 Series, 2C Case, C Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_mel_MPR1_2C_D_19960828	Microelectronics MPR1 Series, 2C Case, D Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_mel_MPR1_2C_F_19960828	Microelectronics MPR1 Series, 2C Case, F Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 19 Parts: 10pF-56pF, +/-1%
sc_mel_MPR1_2C_G_19960828	Microelectronics MPR1 Series, 2C Case, G Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 19 Parts: 10pF-56pF, +/-2%
sc_mel_MPR1_2C_J_19960828	Microelectronics MPR1 Series, 2C Case, J Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 23 Parts: 6.8pF-56pF, +/-5%
sc_mel_MPR1_2C_K_19960828	Microelectronics MPR1 Series, 2C Case, K Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 23 Parts: 6.8pF-56pF, +/-10%
sc_mel_MPR1_2C_M_19960828	Microelectronics MPR1 Series, 2C Case, M Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 23 Parts: 6.8pF-56pF, +/-20%
sc_mel_MPR1_2P_B_19960828	Microelectronics MPR1 Series, 2P Case, B Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 36 Parts: 0.2pF-9.1pF, +/-0.1pF
sc_mel_MPR1_2P_C_19960828	Microelectronics MPR1 Series, 2P Case, C Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_mel_MPR1_2P_D_19960828	Microelectronics MPR1 Series, 2P Case, D Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_mel_MPR1_2P_F_19960828	Microelectronics MPR1 Series, 2P Case, F Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 19 Parts: 10pF-56pF, +/-1%
sc_mel_MPR1_2P_G_19960828	Microelectronics MPR1 Series, 2P Case, G Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 19 Parts: 10pF-56pF, +/-2%
sc_mel_MPR1_2P_J_19960828	Microelectronics MPR1 Series, 2P Case, J Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 23 Parts: 6.8pF-56pF, +/-5%
sc_mel_MPR1_2P_K_19960828	Microelectronics MPR1 Series, 2P Case, K Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 23 Parts: 6.8pF-56pF, +/-10%
sc_mel_MPR1_2P_M_19960828	Microelectronics MPR1 Series, 2P Case, M Tolerance, 90 +/-20ppm/deg C(-55 to +125 deg C), 23 Parts: 6.8pF-56pF, +/-20%

Microelectronics MPR3 Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Microelectronics MPR3 Series SMT Capacitors include 32 components, representing 4 case styles and 8 capacitance tolerances. The naming convention for these components is

sc_mel_MPR3_<case style>_<tolerance code>_<extraction date>.

where:

MIL-C-55681/4 cross referenced case style = 1C, 1P, 2C, and 2P

where:

C termination refers to the chip case style

P termination refers to solder coated pellet case style

and tolerance code = B (± 0.1 pF), C ($+0/-0.25$ pF), D (± 0.5 pF), F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$)

thermal coefficient = BP (0 ± 30 ppm/ $^{\circ}$ C thermal coefficient over the temperature range of -55 to 125° C)

case dimensions (length \times width) are:

1C: (0.055 \pm 0.015) inches \times (0.055 \pm 0.015) inches chip

1P: (0.055 \pm 0.025) inches \times (0.055 \pm 0.015) inches pellet

2C: (0.110 \pm 0.020) inches \times (0.110 \pm 0.020) inches chip

2P: (0.110 +0.035/ -0.020) inches \times (0.110 \pm 0.020) inches pellet

The schematic design model for the Microelectronics MPR3 Series SMT capacitors is given by the CAPP2 model.

Microelectronics MPR3 Series SMT Capacitors

Name	Description
sc_mel_MPR3_1C_B_19960828	Microelectronics MPR3 Series, 1C Case, B Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 36 Parts: 0.2pF-9.1pF, +/-0.1pF
sc_mel_MPR3_1C_C_19960828	Microelectronics MPR3 Series, 1C Case, C Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_mel_MPR3_1C_D_19960828	Microelectronics MPR3 Series, 1C Case, D Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_mel_MPR3_1C_F_19960828	Microelectronics MPR3 Series, 1C Case, F Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-1%
sc_mel_MPR3_1C_G_19960828	Microelectronics MPR3 Series, 1C Case, G Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-2%
sc_mel_MPR3_1C_J_19960828	Microelectronics MPR3 Series, 1C Case, J Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-5%
sc_mel_MPR3_1C_K_19960828	Microelectronics MPR3 Series, 1C Case, K Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-10%
sc_mel_MPR3_1C_M_19960828	Microelectronics MPR3 Series, 1C Case, M Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-20%
sc_mel_MPR3_1P_B_19960828	Microelectronics MPR3 Series, 1P Case, B Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 36 Parts: 0.2pF-9.1pF, +/-0.1pF
sc_mel_MPR3_1P_C_19960828	Microelectronics MPR3 Series, 1P Case, C Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_mel_MPR3_1P_D_19960828	Microelectronics MPR3 Series, 1P Case, D Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF

sc_mel_MPR3_1P_F_19960828	Microelectronics MPR3 Series, 1P Case, F Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-1%
sc_mel_MPR3_1P_G_19960828	Microelectronics MPR3 Series, 1P Case, G Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-2%
sc_mel_MPR3_1P_J_19960828	Microelectronics MPR3 Series, 1P Case, J Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-5%
sc_mel_MPR3_1P_K_19960828	Microelectronics MPR3 Series, 1P Case, K Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-10%
sc_mel_MPR3_1P_M_19960828	Microelectronics MPR3 Series, 1P Case, M Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-20%
sc_mel_MPR3_2C_B_19960828	Microelectronics MPR3 Series, 2C Case, B Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 36 Parts: 0.2pF-9.1pF, +/-0.1pF
sc_mel_MPR3_2C_C_19960828	Microelectronics MPR3 Series, 2C Case, C Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_mel_MPR3_2C_D_19960828	Microelectronics MPR3 Series, 2C Case, D Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_mel_MPR3_2C_F_19960828	Microelectronics MPR3 Series, 2C Case, F Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 19 Parts: 10pF-56pF, +/-1%
sc_mel_MPR3_2C_G_19960828	Microelectronics MPR3 Series, 2C Case, G Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 19 Parts: 10pF-56pF, +/-2%
sc_mel_MPR3_2C_J_19960828	Microelectronics MPR3 Series, 2C Case, J Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 23 Parts: 6.8pF-56pF, +/-5%
sc_mel_MPR3_2C_K_19960828	Microelectronics MPR3 Series, 2C Case, K Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 23 Parts: 6.8pF-56pF, +/-10%
sc_mel_MPR3_2C_M_19960828	Microelectronics MPR3 Series, 2C Case, M Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 23 Parts: 6.8pF-56pF, +/-20%
sc_mel_MPR3_2P_B_19960828	Microelectronics MPR3 Series, 2P Case, B Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 36 Parts: 0.2pF-9.1pF, +/-0.1pF
sc_mel_MPR3_2P_C_19960828	Microelectronics MPR3 Series, 2P Case, C Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_mel_MPR3_2P_D_19960828	Microelectronics MPR3 Series, 2P Case, D Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_mel_MPR3_2P_F_19960828	Microelectronics MPR3 Series, 2P Case, F Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 19 Parts: 10pF-56pF, +/-1%
sc_mel_MPR3_2P_G_19960828	Microelectronics MPR3 Series, 2P Case, G Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 19 Parts: 10pF-56pF, +/-2%
sc_mel_MPR3_2P_J_19960828	Microelectronics MPR3 Series, 2P Case, J Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 23 Parts: 6.8pF-56pF, +/-5%
sc_mel_MPR3_2P_K_19960828	Microelectronics MPR3 Series, 2P Case, K Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 23 Parts: 6.8pF-56pF, +/-10%
sc_mel_MPR3_2P_M_19960828	Microelectronics MPR3 Series, 2P Case, M Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 23 Parts: 6.8pF-56pF, +/-20%

Microelectronics MPR5 Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Microelectronics MPR5 Series SMT Capacitors include 16 components, representing 2 case styles and 8 capacitance tolerances. The naming convention for these components is

where:

case style = 2C and 2P

where:

C termination refers to the chip case style

P termination refers to solder coated pellet case style

tolerance code = B (± 0.1 pF), C (+0/ -0.25 pF), D (± 0.5 pF), F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$)

thermal coefficient = BG (90 ± 30 ppm/ $^{\circ}\text{C}$ thermal coefficient over the temperature range of -55 to 175°C)

case dimensions (length \times width) are:

2C: (0.110 ± 0.020) inches \times (0.110 ± 0.020) inches chip

2P: ($0.110 +0.035/-0.020$) inches \times (0.110 ± 0.020) inches pellet

The schematic design model for the Microelectronics MPR5 Series SMT capacitors is given by the CAPP2 model.

Microelectronics MPR5 Series SMT Capacitors

Name	Description
sc_mel_MPR5_2C_B_19960828	Microelectronics MPR5 Series, 2C Case, B Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 28 Parts: 1pF-9.1pF, +/-0.1pF
sc_mel_MPR5_2C_C_19960828	Microelectronics MPR5 Series, 2C Case, C Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 28 Parts: 1pF-9.1pF, +/-0.25pF
sc_mel_MPR5_2C_D_19960828	Microelectronics MPR5 Series, 2C Case, D Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 24 Parts: 1pF-6.2pF, +/-0.5pF
sc_mel_MPR5_2C_F_19960828	Microelectronics MPR5 Series, 2C Case, F Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-1%
sc_mel_MPR5_2C_G_19960828	Microelectronics MPR5 Series, 2C Case, G Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-2%
sc_mel_MPR5_2C_J_19960828	Microelectronics MPR5 Series, 2C Case, J Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-5%
sc_mel_MPR5_2C_K_19960828	Microelectronics MPR5 Series, 2C Case, K Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-10%
sc_mel_MPR5_2C_M_19960828	Microelectronics MPR5 Series, 2C Case, M Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-20%
sc_mel_MPR5_2P_B_19960828	Microelectronics MPR5 Series, 2P Case, B Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 28 Parts: 1pF-9.1pF, +/-0.1pF
sc_mel_MPR5_2P_C_19960828	Microelectronics MPR5 Series, 2P Case, C Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 28 Parts: 1pF-9.1pF, +/-0.25pF
sc_mel_MPR5_2P_D_19960828	Microelectronics MPR5 Series, 2P Case, D Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 24 Parts: 1pF-6.2pF, +/-0.5pF
sc_mel_MPR5_2P_F_19960828	Microelectronics MPR5 Series, 2P Case, F Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-1%
sc_mel_MPR5_2P_G_19960828	Microelectronics MPR5 Series, 2P Case, G Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 25 Parts: 10pF-100pF, +/-2%
sc_mel_MPR5_2P_J_19960828	Microelectronics MPR5 Series, 2P Case, J Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-5%
sc_mel_MPR5_2P_K_19960828	Microelectronics MPR5 Series, 2P Case, K Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-10%
sc_mel_MPR5_2P_M_19960828	Microelectronics MPR5 Series, 2P Case, M Tolerance, 90 +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 6.8pF-100pF, +/-20%

Microelectronics MPR7 Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Microelectronics MPR7 Series SMT Capacitors include 32 components, representing 34 case styles and 8 capacitance tolerances. The naming convention for these components is *sc_mel_MPR7_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 1C, 1P, 2C, or 2P

where:

C termination refers to the chip case style

P termination refers to solder coated pellet case style

tolerance code = B (± 0.1 pF), C ($+0/-0.25$ pF), D (± 0.5 pF), F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$)

thermal coefficient = BP (0 ± 30 ppm/ $^{\circ}$ C thermal coefficient over the temperature range of -55 to 125° C)

case dimensions (length \times width) are:

1C: 0.055 inches \times 0.055 inches

1P: 0.055 inches \times 0.055 inches

2C: 0.110 inches \times 0.110 inches

2P: 0.110 inches \times 0.110 inches

The schematic design model for the Microelectronics MPR7 Series SMT capacitors is given by the CAPP2 model.

Microelectronics MPR7 Series SMT Capacitors

Name	Description
sc_mel_MPR7_1C_B_19960828	Microelectronics MPR7 Series, 1C Case, B Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_mel_MPR7_1C_C_19960828	Microelectronics MPR7 Series, 1C Case, C Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_mel_MPR7_1C_D_19960828	Microelectronics MPR7 Series, 1C Case, D Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_mel_MPR7_1C_F_19960828	Microelectronics MPR7 Series, 1C Case, F Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 41 Parts: 10pF-470pF, +/-1%
sc_mel_MPR7_1C_G_19960828	Microelectronics MPR7 Series, 1C Case, G Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 41 Parts: 10pF-470pF, +/-2%
sc_mel_MPR7_1C_J_19960828	Microelectronics MPR7 Series, 1C Case, J Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 45 Parts: 6.8pF-470pF, +/-5%
sc_mel_MPR7_1C_K_19960828	Microelectronics MPR7 Series, 1C Case, K Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 45 Parts: 6.8pF-470pF, +/-10%
sc_mel_MPR7_1C_M_19960828	Microelectronics MPR7 Series, 1C Case, M Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 45 Parts: 6.8pF-470pF, +/-20%
sc_mel_MPR7_1P_B_19960828	Microelectronics MPR7 Series, 1P Case, B Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_mel_MPR7_1P_C_19960828	Microelectronics MPR7 Series, 1P Case, C Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_mel_MPR7_1P_D_19960828	Microelectronics MPR7 Series, 1P Case, D Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_mel_MPR7_1P_F_19960828	Microelectronics MPR7 Series, 1P Case, F Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 41 Parts: 10pF-470pF, +/-1%
sc_mel_MPR7_1P_G_19960828	Microelectronics MPR7 Series, 1P Case, G Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 41 Parts: 10pF-470pF, +/-2%
sc_mel_MPR7_1P_J_19960828	Microelectronics MPR7 Series, 1P Case, J Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 45 Parts: 6.8pF-470pF, +/-5%
sc_mel_MPR7_1P_K_19960828	Microelectronics MPR7 Series, 1P Case, K Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 45 Parts: 6.8pF-470pF, +/-10%

sc_mel_MPR7_1P_M_19960828	Microelectronics MPR7 Series, 1P Case, M Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 45 Parts: 6.8pF-470pF, +/-20%
sc_mel_MPR7_2C_B_19960828	Microelectronics MPR7 Series, 2C Case, B Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_mel_MPR7_2C_C_19960828	Microelectronics MPR7 Series, 2C Case, C Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_mel_MPR7_2C_D_19960828	Microelectronics MPR7 Series, 2C Case, D Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_mel_MPR7_2C_F_19960828	Microelectronics MPR7 Series, 2C Case, F Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 34 Parts: 10pF-240pF, +/-1%
sc_mel_MPR7_2C_G_19960828	Microelectronics MPR7 Series, 2C Case, G Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 34 Parts: 10pF-240pF, +/-2%
sc_mel_MPR7_2C_J_19960828	Microelectronics MPR7 Series, 2C Case, J Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 38 Parts: 6.8pF-240pF, +/-5%
sc_mel_MPR7_2C_K_19960828	Microelectronics MPR7 Series, 2C Case, K Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 38 Parts: 6.8pF-240pF, +/-10%
sc_mel_MPR7_2C_M_19960828	Microelectronics MPR7 Series, 2C Case, M Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 38 Parts: 6.8pF-240pF, +/-20%
sc_mel_MPR7_2P_B_19960828	Microelectronics MPR7 Series, 2P Case, B Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 37 Parts: 0.1pF-9.1pF, +/-0.1pF
sc_mel_MPR7_2P_C_19960828	Microelectronics MPR7 Series, 2P Case, C Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 35 Parts: 0.3pF-9.1pF, +/-0.25pF
sc_mel_MPR7_2P_D_19960828	Microelectronics MPR7 Series, 2P Case, D Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 29 Parts: 0.5pF-6.2pF, +/-0.5pF
sc_mel_MPR7_2P_F_19960828	Microelectronics MPR7 Series, 2P Case, F Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 34 Parts: 10pF-240pF, +/-1%
sc_mel_MPR7_2P_G_19960828	Microelectronics MPR7 Series, 2P Case, G Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 34 Parts: 10pF-240pF, +/-2%
sc_mel_MPR7_2P_J_19960828	Microelectronics MPR7 Series, 2P Case, J Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 38 Parts: 6.8pF-240pF, +/-5%
sc_mel_MPR7_2P_K_19960828	Microelectronics MPR7 Series, 2P Case, K Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 38 Parts: 6.8pF-240pF, +/-10%
sc_mel_MPR7_2P_M_19960828	Microelectronics MPR7 Series, 2P Case, M Tolerance, +/-30ppm/deg C(-55 to +125 deg C), 38 Parts: 6.8pF-240pF, +/-20%

muRata Monolithic Ceramic SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Monolithic Ceramic SMT capacitors are used in a variety of applications, including pagers, cellular radio, and base stations. The muRata Monolithic Ceramic SMT Capacitors include 28 components, representing 2 series, 6 case styles, 2 temperature coefficients, 5 voltage rating, and 4 tolerances. The naming convention for these components is `sc_mrt_MC<series><case style><thermal coefficient><voltage code><tol>`.

where:

series = GRH, GRM
case style = 36, 39, 40, 708, 710, 110, or 111

thermal coefficient =

COG (0 ± 30 ppm/ $^{\circ}$ C over the temperature range of -55 to 125° C)

X7R ($\pm 15\%$ over the temperature range of -55 to 125° C)

voltage code = 016 (16V), 025 (25V), 050 (50V), 200 (200V), or 500 (500V)

tolerance code = C (± 0.25 pF), D (± 0.5 pF), J ($\pm 5\%$), or K ($\pm 10\%$)

case dimensions (length \times width) are:

36: 0.040 inches \times 0.020 inches

39: 0.060 inches \times 0.030 inches

40: 0.080 inches \times 0.050 inches

110: 0.055 inches \times 0.055 inches

111: 0.110 inches \times 0.110 inches

708: 0.080 inches \times 0.050 inches

710: 0.126 inches \times 0.098 inches

The schematic design model for the muRata Monolithic Ceramic Series SMT capacitors is given by the muRata Monolithic Ceramic SMT Capacitor model.

muRata Monolithic Ceramic Series SMT capacitors

Name	Description
sc_mrt_MC_GRH110C0G050_C_19960828	muRata Manufacturing MC Series, GRH110 Case, C Tolerance, ± 30 ppm/deg C (-55 to $+125$ deg C), 50V, 7 Parts: 0.5pF-5pF, ± 0.25 pF
sc_mrt_MC_GRH110C0G050_D_19960828	muRata Manufacturing MC Series, GRH110 Case, D Tolerance, ± 30 ppm/deg C (-55 to $+125$ deg C), 50V, 2 Parts: 7pF-10pF, ± 0.5 pF
sc_mrt_MC_GRH110C0G050_J_19960828	muRata Manufacturing MC Series, GRH110 Case, J Tolerance, ± 30 ppm/deg C (-55 to $+125$ deg C), 50V, 6 Parts: 15pF-100pF, $\pm 5\%$
sc_mrt_MC_GRH111C0G500_C_19960828	muRata Manufacturing MC Series, GRH111 Case, C Tolerance, ± 30 ppm/deg C (-55 to $+125$ deg C), 500V, 7 Parts: 0.5pF-5pF, ± 0.25 pF
sc_mrt_MC_GRH111C0G500_D_19960828	muRata Manufacturing MC Series, GRH111 Case, D Tolerance, ± 30 ppm/deg C (-55 to $+125$ deg C), 500V, 2 Parts: 7pF-10pF, ± 0.5 pF
sc_mrt_MC_GRH111C0G500_J_19960828	muRata Manufacturing MC Series, GRH111 Case, J Tolerance, ± 30 ppm/deg C (-55 to $+125$ deg C), 500V, 6 Parts: 15pF-100pF, $\pm 5\%$
sc_mrt_MC_GRH708C0G050_J_19960828	muRata Manufacturing MC Series, GRH708 Case, J Tolerance, ± 30 ppm/deg C (-55 to $+125$ deg C), 50V, 1 Parts: 100pF, $\pm 5\%$
sc_mrt_MC_GRH708C0G100_J_19960828	muRata Manufacturing MC Series, GRH708 Case, J Tolerance, ± 30 ppm/deg C (-55 to $+125$ deg C), 100V, 1 Parts: 68pF, $\pm 5\%$
sc_mrt_MC_GRH708C0G200_C_19960828	muRata Manufacturing MC Series, GRH708 Case, C Tolerance, ± 30 ppm/deg C (-55 to $+125$ deg C), 200V, 7 Parts: 0.5pF-5pF, ± 0.25 pF
sc_mrt_MC_GRH708C0G200_D_19960828	muRata Manufacturing MC Series, GRH708 Case, D Tolerance, ± 30 ppm/deg C (-55 to $+125$ deg C), 200V, 2 Parts: 7pF-10pF, ± 0.5 pF
sc_mrt_MC_GRH708C0G200_J_19960828	muRata Manufacturing MC Series, GRH708 Case, J Tolerance, ± 30 ppm/deg C (-55 to $+125$ deg C), 200V, 4 Parts: 15pF-47pF,

	+/-5%
sc_mrt_MC_GRH710C0G200_C_19960828	muRata Manufacturing MC Series, GRH710 Case, C Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 200V, 7 Parts: 0.5pF-5pF, +/-0.25pF
sc_mrt_MC_GRH710C0G200_D_19960828	muRata Manufacturing MC Series, GRH710 Case, D Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 200V, 2 Parts: 7pF-10pF, +/-0.5pF
sc_mrt_MC_GRH710C0G200_J_19960828	muRata Manufacturing MC Series, GRH710 Case, J Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 200V, 6 Parts: 15pF-100pF, +/-5%
sc_mrt_MC_GRM36C0G050_C_19960828	muRata Manufacturing MC Series, GRM36 Case, C Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 8 Parts: 0.5pF-5pF, +/-0.25pF
sc_mrt_MC_GRM36C0G050_D_19960828	muRata Manufacturing MC Series, GRM36 Case, D Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 6pF-10pF, +/-0.5pF
sc_mrt_MC_GRM36C0G050_J_19960828	muRata Manufacturing MC Series, GRM36 Case, J Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 12 Parts: 12pF-100pF, +/-5%
sc_mrt_MC_GRM36X7R016_K_19960828	muRata Manufacturing MC Series, GRM36 Case, K Tolerance, +/-15% (-55 to +125 deg C), 16V, 2 Parts: 8.2nF-10nF, +/-10%
sc_mrt_MC_GRM36X7R025_K_19960828	muRata Manufacturing MC Series, GRM36 Case, K Tolerance, +/-15% (-55 to +125 deg C), 25V, 3 Parts: 4.7nF-6.8nF, +/-10%
sc_mrt_MC_GRM36X7R050_K_19960828	muRata Manufacturing MC Series, GRM36 Case, K Tolerance, +/-15% (-55 to +125 deg C), 50V, 16 Parts: 220pF-3.9nF, +/-10%
sc_mrt_MC_GRM39C0G050_C_19960828	muRata Manufacturing MC Series, GRM39 Case, C Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 8 Parts: 0.5pF-5pF, +/-0.25pF
sc_mrt_MC_GRM39C0G050_D_19960828	muRata Manufacturing MC Series, GRM39 Case, D Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 6pF-10pF, +/-0.5pF
sc_mrt_MC_GRM39C0G050_J_19960828	muRata Manufacturing MC Series, GRM39 Case, J Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 20 Parts: 12pF-470pF, +/-5%
sc_mrt_MC_GRM39X7R050_K_19960828	muRata Manufacturing MC Series, GRM39 Case, K Tolerance, +/-15% (-55 to +125 deg C), 50V, 21 Parts: 220pF-10nF, +/-10%
sc_mrt_MC_GRM40C0G050_C_19960828	muRata Manufacturing MC Series, GRM40 Case, C Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 8 Parts: 0.5pF-5pF, +/-0.25pF
sc_mrt_MC_GRM40C0G050_D_19960828	muRata Manufacturing MC Series, GRM40 Case, D Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 5 Parts: 6pF-10pF, +/-0.5pF
sc_mrt_MC_GRM40C0G050_J_19960828	muRata Manufacturing MC Series, GRM40 Case, J Tolerance, +/-30ppm/deg C (-55 to +125 deg C), 50V, 28 Parts: 12pF-2.2nF, +/-5%
sc_mrt_MC_GRM40X7R050_K_19960828	muRata Manufacturing MC Series, GRM40 Case, K Tolerance, +/-15% (-55 to +125 deg C), 50V, 21 Parts: 220pF-10nF, +/-10%

Philips Measurement-Based CMC Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Philips Measurement-Based CMC Series devices are used in mobile communications, cellular radio, satellite TV, and radio, pagers, and test and measurement equipment. The Philips Measurement-Based CMC Series SMT Capacitors include 6 components, representing 3 case styles and 2 tolerances. The naming convention for these components is *sc_phl_CMC_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 0603, 0805, or 1206
tolerance code = 1 (± 0.25 pF) and 5 ($\pm 1\%$)

For case style 0603:

All parts, 0 ± 30 ppm/ $^{\circ}\text{C}$ thermal coefficient over the temperature range of -55 to 125°C

For case styles 0805 and 1206

Capacitance values = $0.47 \text{ pF} \leq C < 5 \text{ pF}$; temperature coefficient code = 0 ± 150 ppm/ $^{\circ}\text{C}$ over the temperature range of -55 to 125°C

Capacitance values = $5 \text{ pF} \leq C < 10 \text{ pF}$; temperature coefficient code = 0 ± 150 ppm/ $^{\circ}\text{C}$ over the temperature range of -55 to 125°C

Capacitance values = $C \leq 10 \text{ pF}$; temperature coefficient code = 0 ± 30 ppm/ $^{\circ}\text{C}$ over the temperature range of -55 to 125°C

case dimensions (length \times width) are:

0603: 0.063 inches \times 0.032 inches
0805: 0.079 inches \times 0.049 inches
1206: 0.126 inches \times 0.063 inches

This library does not support Statistical Yield simulation, although tolerance is specified for each component, because the discrete devices measured had the specified tolerance for the nominal capacitance value.

Philips CMC Series SMT Capacitors

Name	Description
sc_phl_CMC_0603_1_19920918	Philips CMC Series, 0603 Case, 1 Tolerance, 63V, 16 Parts: 0.47pF-8.2pF, +/-0.25pF
sc_phl_CMC_0603_5_19920918	Philips CMC Series, 0603 Case, 5 Tolerance, 63V, 9 Parts: 10pF-47pF, +/-1%
sc_phl_CMC_0805_1_19920918	Philips CMC Series, 0805 Case, 1 Tolerance, 63V, 16 Parts: 0.47pF-8.2pF, +/-0.25pF
sc_phl_CMC_0805_5_19920918	Philips CMC Series, 0805 Case, 5 Tolerance, 63V, 12 Parts: 10pF-82pF, +/-1%
sc_phl_CMC_1206_1_19920918	Philips CMC Series, 1206 Case, 1 Tolerance, 63V, 16 Parts: 0.47pF-8.2pF, +/-0.25pF
sc_phl_CMC_1206_5_19920918	Philips CMC Series, 1206 Case, 5 Tolerance, 63V, 14 Parts: 10pF-120pF, +/-1%

Sprague 592D Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Sprague 592D series of tantalum capacitors have applications in the cellular radio markets.

The Sprague 592D Series SMT Capacitors include 16 components, representing 3 case styles, 2 voltage ratings, and 5 capacitance tolerances. The naming convention for these components is *sc_spr_592D_<case style><voltage code>_<tolerance code>_<extraction date>*.

where:

case style = B, C, D, or R
voltage code = 016 (16V) or 025 (25V)
tolerance code = X0 ($\pm 20\%$) or X9 ($\pm 10\%$)

case dimensions (length \times width) are:

B: 0.158 inches \times 0.104 inches
C: 0.281 inches \times 0.126 inches
D: 0.293 inches \times 0.170 inches
R: 0.285 inches \times 0.235 inches

Sprague 592D Series SMT Capacitors

Name	Description
sc_spr_592D_B016_X0_19960828	Sprague 592D Series, B Case, X0 Tolerance, 16V, 1 Parts: 6.8 μ F, +/-20%
sc_spr_592D_B016_X9_19960828	Sprague 592D Series, B Case, X9 Tolerance, 16V, 1 Parts: 6.8 μ F, +/-10%
sc_spr_592D_B025_X0_19960828	Sprague 592D Series, B Case, X0 Tolerance, 25V, 1 Parts: 2.2 μ F, +/-20%
sc_spr_592D_B025_X9_19960828	Sprague 592D Series, B Case, X9 Tolerance, 25V, 1 Parts: 2.2 μ F, +/-10%
sc_spr_592D_C016_X0_19960828	Sprague 592D Series, C Case, X0 Tolerance, 16V, 1 Parts: 10 μ F, +/-20%
sc_spr_592D_C016_X9_19960828	Sprague 592D Series, C Case, X9 Tolerance, 16V, 1 Parts: 10 μ F, +/-10%
sc_spr_592D_C025_X0_19960828	Sprague 592D Series, C Case, X0 Tolerance, 25V, 2 Parts: 3.3 μ F-4.7 μ F, +/-20%
sc_spr_592D_C025_X9_19960828	Sprague 592D Series, C Case, X9 Tolerance, 25V, 2 Parts: 3.3 μ F-4.7 μ F, +/-10%
sc_spr_592D_D016_X0_19960828	Sprague 592D Series, D Case, X0 Tolerance, 16V, 2 Parts: 15 μ F-22 μ F, +/-20%
sc_spr_592D_D016_X9_19960828	Sprague 592D Series, D Case, X9 Tolerance, 16V, 2 Parts: 15 μ F-22 μ F, +/-10%
sc_spr_592D_D025_X0_19960828	Sprague 592D Series, D Case, X0 Tolerance, 25V, 1 Parts: 6.8 μ F, +/-20%
sc_spr_592D_D025_X9_19960828	Sprague 592D Series, D Case, X9 Tolerance, 25V, 1 Parts: 6.8 μ F, +/-10%
sc_spr_592D_R016_X0_19960828	Sprague 592D Series, R Case, X0 Tolerance, 16V, 1 Parts: 33 μ F, +/-20%
sc_spr_592D_R016_X9_19960828	Sprague 592D Series, R Case, X9 Tolerance, 16V, 1 Parts: 33 μ F, +/-10%
sc_spr_592D_R025_X0_19960828	Sprague 592D Series, R Case, X0 Tolerance, 25V, 1 Parts: 10 μ F, +/-20%
sc_spr_592D_R025_X9_19960828	Sprague 592D Series, R Case, X9 Tolerance, 25V, 1 Parts: 10 μ F, +/-10%

Sprague 293D Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Sprague 293D Series SMT Capacitors include 26 components, representing 5 case styles in 3 voltage ratings and 2 capacitance tolerances. The naming convention for these components is *sc_spr_293D_<case style><voltage code>_<tolerance code>_<extraction date>*.

where:

case style = A, B, C, D, or E

voltage rating code = 010 (10V), 016 (16V), or 025 (25V)

tolerance code = X9 ($\pm 10\%$) or X0 ($\pm 20\%$)

case dimensions (length \times width) are:

A: .126 inches \times .063 inches

B: .138 inches \times .110 inches

C: .236 inches \times .126 inches

D: .287 inches \times .170 inches

E: .228 inches \times .177 inches

Sprague 293D Series SMT Capacitors

Advanced Design System 2011.01 - Vendor Component Libraries - RF Passive SMT Library

Name	Description
sc_spr_293D_A010_X0_19960828	Sprague 293D Series, A Case, X0 Tolerance, 10V, 4 Parts: 1.5µF-4.7µF, +/-20%
sc_spr_293D_A010_X9_19960828	Sprague 293D Series, A Case, X9 Tolerance, 10V, 4 Parts: 1.5µF-4.7µF, +/-10%
sc_spr_293D_A016_X0_19960828	Sprague 293D Series, A Case, X0 Tolerance, 16V, 4 Parts: 1.0µF-3.3µF, +/-20%
sc_spr_293D_A016_X9_19960828	Sprague 293D Series, A Case, X9 Tolerance, 16V, 4 Parts: 1.0µF-3.3µF, +/-10%
sc_spr_293D_A025_X0_19960828	Sprague 293D Series, A Case, X0 Tolerance, 25V, 3 Parts: 0.47µF-1.0µF, +/-20%
sc_spr_293D_A025_X9_19960828	Sprague 293D Series, A Case, X9 Tolerance, 25V, 3 Parts: 0.47µF-1.0µF, +/-10%
sc_spr_293D_B010_X0_19960828	Sprague 293D Series, B Case, X0 Tolerance, 10V, 3 Parts: 4.7µF-10µF, +/-20%
sc_spr_293D_B010_X9_19960828	Sprague 293D Series, B Case, X9 Tolerance, 10V, 3 Parts: 4.7µF-10µF, +/-10%
sc_spr_293D_B016_X0_19960828	Sprague 293D Series, B Case, X0 Tolerance, 16V, 4 Parts: 2.2µF-6.8µF, +/-20%
sc_spr_293D_B016_X9_19960828	Sprague 293D Series, B Case, X9 Tolerance, 16V, 4 Parts: 2.2µF-6.8µF, +/-10%
sc_spr_293D_B025_X0_19960828	Sprague 293D Series, B Case, X0 Tolerance, 25V, 4 Parts: 1.0µF-3.3µF, +/-20%
sc_spr_293D_B025_X9_19960828	Sprague 293D Series, B Case, X9 Tolerance, 25V, 4 Parts: 1.0µF-3.3µF, +/-10%
sc_spr_293D_C010_X0_19960828	Sprague 293D Series, C Case, X0 Tolerance, 10V, 4 Parts: 10µF-33µF, +/-20%
sc_spr_293D_C010_X9_19960828	Sprague 293D Series, C Case, X9 Tolerance, 10V, 4 Parts: 10µF-33µF, +/-10%
sc_spr_293D_C016_X0_19960828	Sprague 293D Series, C Case, X0 Tolerance, 16V, 4 Parts: 6.8µF-22µF, +/-20%
sc_spr_293D_C016_X9_19960828	Sprague 293D Series, C Case, X9 Tolerance, 16V, 4 Parts: 6.8µF-22µF, +/-10%
sc_spr_293D_C025_X0_19960828	Sprague 293D Series, C Case, X0 Tolerance, 25V, 4 Parts: 3.3µF-10µF, +/-20%
sc_spr_293D_C025_X9_19960828	Sprague 293D Series, C Case, X9 Tolerance, 25V, 4 Parts: 3.3µF-10µF, +/-10%
sc_spr_293D_D016_X0_19960828	Sprague 293D Series, D Case, X0 Tolerance, 16V, 4 Parts: 22µF-68µF, +/-20%
sc_spr_293D_D016_X9_19960828	Sprague 293D Series, D Case, X9 Tolerance, 16V, 4 Parts: 22µF-68µF, +/-10%
sc_spr_293D_D025_X0_19960828	Sprague 293D Series, D Case, X0 Tolerance, 25V, 4 Parts: 6.8µF-22µF, +/-20%
sc_spr_293D_D025_X9_19960828	Sprague 293D Series, D Case, X9 Tolerance, 25V, 4 Parts: 6.8µF-22µF, +/-10%
sc_spr_293D_E016_X0_19960828	Sprague 293D Series, E Case, X0 Tolerance, 16V, 3 Parts: 22µF-47µF, +/-20%
sc_spr_293D_E016_X9_19960828	Sprague 293D Series, E Case, X9 Tolerance, 16V, 3 Parts: 22µF-47µF, +/-10%
sc_spr_293D_E025_X0_19960828	Sprague 293D Series, E Case, X0 Tolerance, 25V, 3 Parts: 10µF-22µF, +/-

	20%
sc_spr_293D_E025_X9_19960828	Sprague 293D Series, E Case, X9 Tolerance, 25V, 3 Parts: 10 μ F-22 μ F, +/- 10%

Sprague 595D Series SMT Capacitors

For modeling specifications, see [Schematic Design](#).

The Sprague 595D Series SMT Capacitors include 36 components, representing 6 case styles in 3 voltage ratings and 2 capacitance tolerances. The naming convention for these components is *sc_spr_595D_<case style><voltage code>_<tolerance code>_<extraction date>*.

where:

case style = T, A, B, C, D, or R
voltage rating code = 010 (10V), 016 (16V), or 025 (25V)
tolerance code = X9 ($\pm 10\%$) or X0 ($\pm 20\%$)

case dimensions (length \times width) are:

T: .079 inches \times .045 inches
A: .138 inches \times .072 inches
B: .150 inches \times .104 inches
C: .273 inches \times .126 inches
D: .283 inches \times .170 inches
R: .273 inches \times .235 inches

Sprague 595D Series SMT Capacitors

Component Name	Case Type	Tolerance Code	Voltage Rating (V)	Number of Parts	Range
sc_spr_595D_A010_X0_19960828	A	X0	10	4	3.3 μ F-10 μ F
sc_spr_595D_A010_X9_19960828	A	X9	10	4	3.3 μ F-10 μ F
sc_spr_595D_A016_X0_19960828	A	X0	16	4	2.2 μ F-6.8 μ F
sc_spr_595D_A016_X9_19960828	A	X9	16	4	2.2 μ F-6.8 μ F
sc_spr_595D_A025_X0_19960828	A	X0	25	3	0.68 μ F-1.5 μ F
sc_spr_595D_A025_X9_19960828	A	X9	25	3	0.68 μ F-1.5 μ F
sc_spr_595D_B010_X0_19960828	B	X0	10	1	15 μ F
sc_spr_595D_B010_X9_19960828	B	X9	10	1	15 μ F
sc_spr_595D_B016_X0_19960828	B	X0	16	2	10 μ F-15 μ F
sc_spr_595D_B016_X9_19960828	B	X9	16	2	10 μ F-15 μ F
sc_spr_595D_B025_X0_19960828	B	X0	25	2	2.2 μ F-3.3 μ F
sc_spr_595D_B025_X9_19960828	B	X9	25	2	2.2 μ F-3.3 μ F

Advanced Design System 2011.01 - Vendor Component Libraries - RF Passive SMT Library

sc_spr_595D_C010_X0_19960828	C	X0	10	4	22μF-68μF
sc_spr_595D_C010_X9_19960828	C	X9	10	4	22μF-68μF
sc_spr_595D_C016_X0_19960828	C	X0	16	3	22μF-47μF
sc_spr_595D_C016_X9_19960828	C	X9	16	3	22μF-47μF
sc_spr_595D_C025_X0_19960828	C	X0	25	4	4.7μF-15μF
sc_spr_595D_C025_X9_19960828	C	X9	25	4	4.7μF-15μF
sc_spr_595D_D010_X0_19960828	D	X0	10	3	100μF-150μF
sc_spr_595D_D010_X9_19960828	D	X9	10	3	100μF-150μF
sc_spr_595D_D016_X0_19960828	D	X0	16	2	68μF-100μF
sc_spr_595D_D016_X9_19960828	D	X9	16	2	68μF-100μF
sc_spr_595D_D025_X0_19960828	D	X0	25	2	22μF-33μF
sc_spr_595D_D025_X9_19960828	D	X9	25	2	22μF-33μF
sc_spr_595D_R010_X0_19960828	R	X0	10	1	180μF
sc_spr_595D_R010_X9_19960828	R	X9	10	1	180μF
sc_spr_595D_R016_X0_19960828	R	X0	16	3	120μF-180μF
sc_spr_595D_R016_X9_19960828	R	X9	16	3	120μF-180μF
sc_spr_595D_R025_X0_19960828	R	X0	25	2	47μF-68μF
sc_spr_595D_R025_X9_19960828	R	X9	25	2	47μF-68μF
sc_spr_595D_T010_X0_19960828	T	X0	10	1	2.2μF
sc_spr_595D_T010_X9_19960828	T	X9	10	1	2.2μF
sc_spr_595D_T016_X0_19960828	T	X0	16	1	1.5μF
sc_spr_595D_T016_X9_19960828	T	X9	16	1	1.5μF
sc_spr_595D_T025_X0_19960828	T	X0	25	1	0.47μF
sc_spr_595D_T025_X9_19960828	T	X9	25	1	0.47μF

Sprague SMT Capacitors

Name	Description
sc_spr_595D_A010_X0_19960828	Sprague 595D Series, A Case, X0 Tolerance, 10V, 4 Parts: 3.3μF-10μF, +/-20%
sc_spr_595D_A010_X9_19960828	Sprague 595D Series, A Case, X9 Tolerance, 10V, 4 Parts: 3.3μF-10μF, +/-10%
sc_spr_595D_A016_X0_19960828	Sprague 595D Series, A Case, X0 Tolerance, 16V, 4 Parts: 2.2μF-6.8μF, +/-20%
sc_spr_595D_A016_X9_19960828	Sprague 595D Series, A Case, X9 Tolerance, 16V, 4 Parts: 2.2μF-6.8μF, +/-10%
sc_spr_595D_A025_X0_19960828	Sprague 595D Series, A Case, X0 Tolerance, 25V, 3 Parts: 0.68μF-1.5μF, +/-20%
sc_spr_595D_A025_X9_19960828	Sprague 595D Series, A Case, X9 Tolerance, 25V, 3 Parts: 0.68μF-1.5μF, +/-10%
sc_spr_595D_B010_X0_19960828	Sprague 595D Series, B Case, X0 Tolerance, 10V, 1 Parts: 15μF, +/-20%
sc_spr_595D_B010_X9_19960828	Sprague 595D Series, B Case, X9 Tolerance, 10V, 1 Parts: 15μF, +/-10%

Advanced Design System 2011.01 - Vendor Component Libraries - RF Passive SMT Library

sc_spr_595D_B016_X0_19960828	Sprague 595D Series, B Case, X0 Tolerance, 16V, 2 Parts: 10µF-15µF, +/-20%
sc_spr_595D_B016_X9_19960828	Sprague 595D Series, B Case, X9 Tolerance, 16V, 2 Parts: 10µF-15µF, +/-10%
sc_spr_595D_B025_X0_19960828	Sprague 595D Series, B Case, X0 Tolerance, 25V, 2 Parts: 2.2µF-3.3µF, +/-20%
sc_spr_595D_B025_X9_19960828	Sprague 595D Series, B Case, X9 Tolerance, 25V, 2 Parts: 2.2µF-3.3µF, +/-10%
sc_spr_595D_C010_X0_19960828	Sprague 595D Series, C Case, X0 Tolerance, 10V, 4 Parts: 22µF-68µF, +/-20%
sc_spr_595D_C010_X9_19960828	Sprague 595D Series, C Case, X9 Tolerance, 10V, 4 Parts: 22µF-68µF, +/-10%
sc_spr_595D_C016_X0_19960828	Sprague 595D Series, C Case, X0 Tolerance, 16V, 3 Parts: 22µF-47µF, +/-20%
sc_spr_595D_C016_X9_19960828	Sprague 595D Series, C Case, X9 Tolerance, 16V, 3 Parts: 22µF-47µF, +/-10%
sc_spr_595D_C025_X0_19960828	Sprague 595D Series, C Case, X0 Tolerance, 25V, 4 Parts: 4.7µF-15µF, +/-20%
sc_spr_595D_C025_X9_19960828	Sprague 595D Series, C Case, X9 Tolerance, 25V, 4 Parts: 4.7µF-15µF, +/-10%
sc_spr_595D_D010_X0_19960828	Sprague 595D Series, D Case, X0 Tolerance, 10V, 3 Parts: 100µF-150µF, +/-20%
sc_spr_595D_D010_X9_19960828	Sprague 595D Series, D Case, X9 Tolerance, 10V, 3 Parts: 100µF-150µF, +/-10%
sc_spr_595D_D016_X0_19960828	Sprague 595D Series, D Case, X0 Tolerance, 16V, 2 Parts: 68µF-100µF, +/-20%
sc_spr_595D_D016_X9_19960828	Sprague 595D Series, D Case, X9 Tolerance, 16V, 2 Parts: 68µF-100µF, +/-10%
sc_spr_595D_D025_X0_19960828	Sprague 595D Series, D Case, X0 Tolerance, 25V, 2 Parts: 22µF-33µF, +/-20%
sc_spr_595D_D025_X9_19960828	Sprague 595D Series, D Case, X9 Tolerance, 25V, 2 Parts: 22µF-33µF, +/-10%
sc_spr_595D_R010_X0_19960828	Sprague 595D Series, R Case, X0 Tolerance, 10V, 1 Parts: 180µF, +/-20%
sc_spr_595D_R010_X9_19960828	Sprague 595D Series, R Case, X9 Tolerance, 10V, 1 Parts: 180µF, +/-10%
sc_spr_595D_R016_X0_19960828	Sprague 595D Series, R Case, X0 Tolerance, 16V, 3 Parts: 120µF-180µF, +/-20%
sc_spr_595D_R016_X9_19960828	Sprague 595D Series, R Case, X9 Tolerance, 16V, 3 Parts: 120µF-180µF, +/-10%
sc_spr_595D_R025_X0_19960828	Sprague 595D Series, R Case, X0 Tolerance, 25V, 2 Parts: 47µF-68µF, +/-20%
sc_spr_595D_R025_X9_19960828	Sprague 595D Series, R Case, X9 Tolerance, 25V, 2 Parts: 47µF-68µF, +/-10%
sc_spr_595D_T010_X0_19960828	Sprague 595D Series, T Case, X0 Tolerance, 10V, 1 Parts: 2.2µF, +/-20%
sc_spr_595D_T010_X9_19960828	Sprague 595D Series, T Case, X9 Tolerance, 10V, 1 Parts: 2.2µF, +/-10%
sc_spr_595D_T016_X0_19960828	Sprague 595D Series, T Case, X0 Tolerance, 16V, 1 Parts: 1.5µF, +/-20%
sc_spr_595D_T016_X9_19960828	Sprague 595D Series, T Case, X9 Tolerance, 16V, 1 Parts: 1.5µF, +/-10%
sc_spr_595D_T025_X0_19960828	Sprague 595D Series, T Case, X0 Tolerance, 25V, 1 Parts: 0.47µF, +/-20%

sc_spr_595D_T025_X9_19960828	Sprague 595D Series, T Case, X9 Tolerance, 25V, 1 Parts: 0.47 μ F, +/- 10%
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SMT Inductors

The SMT Inductor Library consists of discrete-valued linear models representing 74 surface mount inductors from 11 manufacturers. The models were extracted from data provided by these manufacturers.

Note
The library itself is a binary file named *SMT_InductorLibrary.library* which can be found in *\$HPEESOF_DIR/ComponentLibs/models*.

The SMT inductor library groups available for selection from the Schematic and Layout windows are:

- [ACT IC1210 Series SMT Inductors](#)
- [ACT IC1812 Series SMT Inductors](#)
- [ACT AIC1210 Series SMT Inductors](#)
- [ACT AIC1812 Series SMT Inductors](#)
- [ACT AIS1812 Series SMT Inductors](#)
- [ACT MIC0805 Series SMT Inductors](#)
- [ACT MIC1206 Series SMT Inductors](#)
- [AVX ACCU-L0805 Series SMT Inductors](#)
- [Coilcraft 0603HS Series SMT Inductors](#)
- [Coilcraft 0805CS Series SMT Inductors](#)
- [Coilcraft 1008CS Series SMT Inductors](#)
- [Dale IMC1210 Series SMT Inductors](#)
- [Dale IMC1812 Series SMT Inductors](#)
- [Dale ISC1210 Series SMT Inductors](#)
- [Dale ISC1812 Series SMT Inductors](#)
- [Ecliptek EC1210 Series SMT Inductors](#)
- [Ecliptek EC1812 Series SMT Inductors](#)
- [J. W. Miller PM20 Series SMT Inductors](#)
- [J. W. Miller PM20S Series SMT Inductors](#)

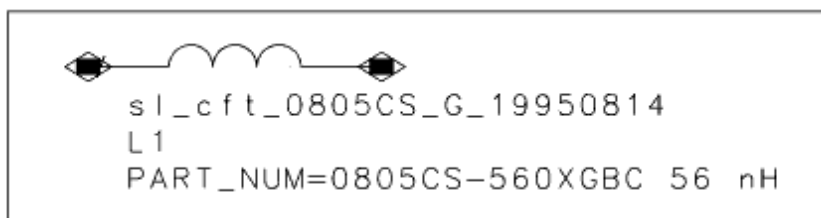
- [KOA KL32 Series SMT Inductors](#)
- [Piconics PA Series SMT Inductors](#)
- [Piconics PG Series SMT Inductors](#)
- [Piconics PK Series SMT Inductors](#)
- [Sprague Goodman GLA Series SMT Inductors](#)
- [Sprague Goodman GLU Series SMT Inductors](#)
- [TDK NL252018 Series SMT Inductors](#)
- [TDK NLU201205 Series SMT Inductors](#)
- [TDK NLS201208 Series SMT Inductors](#)
- [TOKO LL1608-F Series SMT Inductors](#)
- [TOKO LL2012-F Series SMT Inductors](#)

Schematic Design

This section describes the schematic design of the SMT inductor library components and specifies the simulation models that are incorporated in the design.

[SMT Inductor Schematic Component Example](#) shows how an SMT inductor component appears when placed into the Schematic design window. The annotation consists of the component name, the default component ID prefix (in this case, L), the component parameter, PART_NUM, the SMT_Pad, and OFFSET parameters which are used for layout generation only.

To perform layout generation based on required footprint parameters, it is important to include an SMT_Pad data component in the schematic and specify the foot print parameters in that instance of SMT_Pad. Otherwise, default dimensions of SMT_Pad data component are used during layout generation.



SMT Inductor Schematic Component Example

Each inductor library component represents a series of components from a single manufacturer with a common case style and inductance tolerance. The PART_NUM parameter is used to identify a specific vendor part in the selected component. In the component parameter dialog box, the Parameter Entry option button for the PART_NUM parameter contains each vendor part attributable to the selected component. This option button also includes options for Discrete Value Optimization and assignment to a specified Variable.

Caution

In the Variable Part Index assignment, you assign the index number (not the nominal value) to the PART_NUM parameter.

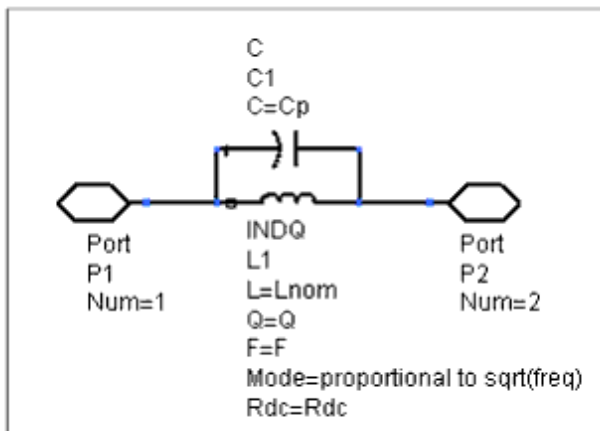
For example, *Discrete Value Optimization Variables* lists the Parameter Entry Mode options (representing 8 parts ranging from 56 nH to 220 nH) for the sl_cft_0805SC_G component PART_NUM parameter.

Discrete Value Optimization Variables

Parameter Entry Mode	Nominal Value
Discrete Optimize	(does not apply)
Variable	(does not apply)
0805CS-680XGBC	68 nH
0805CS-820XGBC	82 nH
0805CS-101XGBC	100 nH
0805CS-121XGBC	120 nH
0805CS-151XGBC	150 nH
0805CS-181XGBC	180 nH
0805CS-221XGBC	220 nH

The label field appearing at the top of the Component Parameters dialog box contains the selected component label.

The SMT inductor component represents an equivalent circuit model embedded within the netlist of the schematic design. An example of such a design is shown in [SMT Inductor Equivalent Circuit Model Schematic Design](#).



SMT Inductor Equivalent Circuit Model Schematic Design

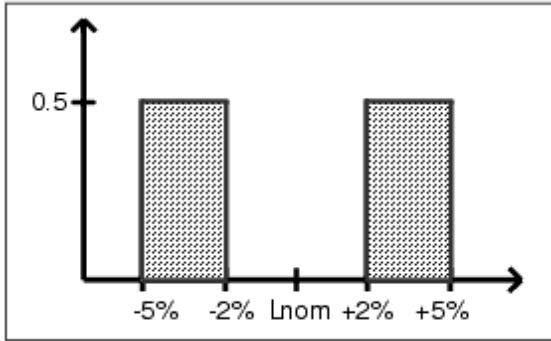
The equivalent circuit model is comprised of components described in [SMT Inductor Equivalent Circuit Model Schematic Design](#). For the example model the values of the INDQ parameters and C are:

- Ln_{nom}: The nominal inductance of the INDQ component, in inductance units
- Q: The Q of the INDQ component
- F: The reference frequency at which the inductor Q is defined, in frequency units
- R_{dc}: The DC resistance of the INDQ component, in resistance units
- C_p: The distributed stray capacitance, attributable to and calculated from SRF, in capacitance units

Statistical implementation refers to the capability of simulating discrete yield analysis for a particular inductor. This capability is available with most of the models in this library. The probability density function (PDF) associated with each inductance value is defined by piecewise linear characteristics. For parts that represent the tightest tolerance available from the manufacturer, the associated PDF for the inductor is represented by a uniform distribution, centered at the nominal inductance value and with width of plus or minus the tolerance associated with the model group component. The height of the uniform probability density function is equal to 1.

Manufacturers have two ways of producing parts with a specific tolerance. The first method is to manufacture for a nominal value with a specific tolerance. In the second method the manufacturer pre-selects the higher tolerance parts from a given batch and the probability that the customer will receive a part within the tighter tolerance range is zero. Model group components that represent parts selected with the first method will have a uniform probability density function for each tolerance value and model group components that represent parts selected with the second method will have their looser tolerances employ bimodal probability density functions, representing a uniform distribution for the specified tolerance minus the PDF associated with the next smaller tolerance.

In all cases, uniform distributions of the density functions were chosen to approximate the gaussian manufacturing process, since the standard deviations of the process are not available to EEsof. The uniform approximation will yield more pessimistic (conservative) yield estimates than the true gaussian distributions, if ones were available. A graphical example of a PDF is shown in [SMT Inductor Library Probability Density Function Example](#). In this example, the manufacturer group offers 1%, 2%, 5%, and 10% parts. Customers ordering 5% parts will only receive inductance values falling between 0.95 • Ln_{nom} to 0.98 • Ln_{nom} or between 1.02 • Ln_{nom} to 1.05 • Ln_{nom}.



SMT Inductor Library

Probability Density Function Example

ACT AIC1210 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The ACT AIC1210 inductors are used for applications that include wireless LANs, GPS, cellular phones, pagers, and satellite type modems.

The ACT AIC1210 inductors include 3 inductance tolerances. The naming convention for these components is *sl_act_AIC1210_<tolerance code>_<extraction date>*.

where:

tolerance code = J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).

case dimensions (length \times width) are: 0.126 inches \times .098 inches

ACT AIC1210 Series SMT Inductors

Component Name	Description
sl_act_AIC1210_J_19960828	ACT AIC1210 Series, 1210 Case, J Tolerance, 41 Parts: 100nH-220uH, +/-5%
sl_act_AIC1210_K_19960828	ACT AIC1210 Series, 1210 Case, K Tolerance, 41 Parts: 100nH-220uH, +/-10%
sl_act_AIC1210_M_19960828	ACT AIC1210 Series, 1210 Case, M Tolerance, 41 Parts: 100nH-220uH, +/-20%

ACT AIC1812 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The ACT AIC1812 inductors are used for applications that include wireless LANs, GPS, cellular phones, pagers, and satellite type modems.

The ACT AIC1812 inductors include 3 inductance tolerances. The naming convention for these components is *sl_act_AIC1812_<tolerance code>_<extraction date>*.

where:

tolerance code = J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).
 case dimensions (length \times width) are: 0.177 inches \times .126 inches

ACT AIC1812 Series SMT Inductors

Component Name	Description
sl_act_AIC1812_J_19960828	ACT AIC1812 Series, 1812 Case, J Tolerance, 49 Parts: 100nH-1mH, +/-5%
sl_act_AIC1812_K_19960828	ACT AIC1812 Series, 1812 Case, K Tolerance, 49 Parts: 100nH-1mH, +/-10%
sl_act_AIC1812_M_19960828	ACT AIC1812 Series, 1812 Case, M Tolerance, 49 Parts: 100nH-1mH, +/-20%
sl_act_AIS1812_J_19960828	ACT AIS1812 Series, 1812 Case, J Tolerance, 49 Parts: 100nH-1mH, +/-5%
sl_act_AIS1812_K_19960828	ACT AIS1812 Series, 1812 Case, K Tolerance, 49 Parts: 100nH-1mH, +/-10%
sl_act_AIS1812_M_19960828	ACT AIS1812 Series, 1812 Case, M Tolerance, 49 Parts: 100nH-1mH, +/-20%

ACT AIS1812 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The ACT AIS1812 inductors are used for applications that include wireless LANs, GPS, cellular phones, pagers, and satellite type modems.

The ACT AIS1812 inductors include 3 inductance tolerances. The naming convention for these components is *sl_act_AIS1812_<tolerance code>_<extraction date>*.

where:

tolerance code = J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).
 case dimensions (length \times width) are: 0.177 inches \times .126 inches

ACT AIS1812 Series SMT Inductors

Component Name	Description
sl_act_AIS1812_J_19960828	ACT AIS1812 Series, 1812 Case, J Tolerance, 49 Parts: 100nH-1mH, +/-5%
sl_act_AIS1812_K_19960828	ACT AIS1812 Series, 1812 Case, K Tolerance, 49 Parts: 100nH-1mH, +/-10%
sl_act_AIS1812_M_19960828	ACT AIS1812 Series, 1812 Case, M Tolerance, 49 Parts: 100nH-1mH, +/-20%

ACT IC1210 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The ACT IC1210 inductors are used for applications that include wireless LANs, GPS, cellular phones, pagers, and satellite-type modems.

The ACT IC1210 inductors include 3 components, representing inductance tolerances. The naming convention for these components is *sl_act_IC1210_<tolerance code>_<extraction date>*.

where:

tolerance code = J (5%), K (10%), or M (20%).

case dimensions (length × width) are: 0.126 inches × .098 inches

ACT IC1210 Series SMT Inductors

Component Name	Description
sl_act_IC1210_J_19960828	ACT IC1210 Series, 1210 Case, J Tolerance, 53 Parts: 10nH-220uH, +/-5%
sl_act_IC1210_K_19960828	ACT IC1210 Series, 1210 Case, K Tolerance, 53 Parts: 10nH-220uH, +/-10%
sl_act_IC1210_M_19960828	ACT IC1210 Series, 1210 Case, M Tolerance, 53 Parts: 10nH-220uH, +/-20%

ACT IC1812 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The ACT IC1812 inductors are used for applications that include wireless LANs, GPS, cellular phones, pagers, and satellite type modems.

The ACT IC1812 inductors include 3 inductance tolerances. The naming convention for these components is *sl_act_IC1812_<tolerance code>_<extraction date>*.

where:

tolerance code = J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).

case dimensions (length × width) are: 0.177 inches × .126 inches

ACT IC1812 Series SMT Inductors

Component Name	Description
sl_act_IC1812_J_19960828	ACT IC1812 Series, 1812 Case, J Tolerance, 49 Parts: 100nH-1mH, +/-5%
sl_act_IC1812_K_19960828	ACT IC1812 Series, 1812 Case, K Tolerance, 49 Parts: 100nH-1mH, +/-10%
sl_act_IC1812_M_19960828	ACT IC1812 Series, 1812 Case, M Tolerance, 49 Parts: 100nH-1mH, +/-20%

ACT MIC0805 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The ACT MIC0805 inductors are used for applications that include wireless LANs, GPS, cellular phones, pagers, and satellite type modems.

The ACT MIC0805 inductors include 3 inductance tolerances. The naming convention for these components is *sl_act_MIC0805_<tolerance code>_<extraction date>*.

where:

tolerance code = J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).

case dimensions (length × width) are: 0.079 inches × .049 inches

ACT MIC0805 Series SMT Inductors

Component Name	Description
sl_act_MIC0805_J_19960828	ACT MIC0805 Series, 0805 Case, J Tolerance, 28 Parts: 47nH-10uH, +/-5%
sl_act_MIC0805_K_19960828	ACT MIC0805 Series, 0805 Case, K Tolerance, 28 Parts: 47nH-10uH, +/-10%
sl_act_MIC0805_M_19960828	ACT MIC0805 Series, 0805 Case, M Tolerance, 28 Parts: 47nH-10uH, +/-20%

ACT MIC1206 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The ACT MIC1206 inductors are used for applications that include wireless LANs, GPS, cellular phones, pagers, and satellite type modems.

The ACT MIC1206 inductors include 3 inductance tolerances. The naming convention for these components is *sl_act_MIC1206_<tolerance code>_<extraction date>*.

where:

tolerance code = J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).
case dimensions (length \times width) are: 0.126 inches \times .063 inches

ACT MIC1206 Series SMT Inductors

Component Name	Description
sl_act_MIC1206_J_19960828	ACT MIC1206 Series, 1206 Case, J Tolerance, 25 Parts: 100nH-10uH, +/-5%
sl_act_MIC1206_K_19960828	ACT MIC1206 Series, 1206 Case, K Tolerance, 25 Parts: 100nH-10uH, +/-10%
sl_act_MIC1206_M_19960828	ACT MIC1206 Series, 1206 Case, M Tolerance, 25 Parts: 100nH-10uH, +/-20%

AVX ACCU-L0805 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The AVX ACCU-L0805 inductors are used for applications that include mobile communications, satellite TV receivers, GPS, vehicle location systems, and filters.

The AVX ACCU-L0805 inductors include 2 inductance tolerances. The naming convention for these components is *sl_avx_ACCU-L0805_<tolerance code>_<extraction date>*.

where:

tolerance code = D (± 0.5 nH) or J ($\pm 5\%$).
case dimensions (length \times width) are: 0.083 inches \times .059 inches

AVX ACCU-L0805 Series SMT Inductors

Component Name	Description
sl_avx_ACCU-L0805_D_19960828	AVX ACCU-L0805 Series, 0805 Case, D Tolerance, 8 Parts: 1.8nH-8.2nH, +/-0.5nH
sl_avx_ACCU-L0805_J_19960828	AVX ACCU-L0805 Series, 0805 Case, J Tolerance, 7 Parts: 10nH-33nH, +/-5%

Coilcraft 0603HS Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Coilcraft 0603HS inductors are used for applications that include cellular and mobile phones, pagers, and beepers.

The Coilcraft 0603HS inductors include 2 inductance tolerances. The naming convention for these components is *sl_cft_0603HS_<tolerance code>_<extraction date>*.
where:

tolerance code = J ($\pm 5\%$) or K ($\pm 10\%$).

case dimensions (length \times width) are: 0.065 inches \times .030 inches

Coilcraft 0603HS Series SMT Inductors

Component Name	Description
sl_cft_0603HS_J_19960828	Coilcraft 0603HS Series, 0603 Case, J Tolerance, 16 Parts: 9.5nH-125nH, +/-5%
sl_cft_0603HS_K_19960828	Coilcraft 0603HS Series, 0603 Case, K Tolerance, 3 Parts: 1.6nH-6.8nH, +/-10%

Coilcraft 0805CS Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Coilcraft 0805CS Series SMT inductors include 4 components, representing 1 case size and 4 inductance tolerances. The naming convention for these components is *sl_cft_0805CS_<tolerance code>_<extraction date>*.

where:

tolerance code = G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).

case dimensions (length \times width) are: 0.080 inches \times .050 inches

Coilcraft 0805CS Series SMT Inductors

Component Name	Description
sl_cft_0805CS_G_19950814	CoilCraft 0805CS Series, 0805C Case, G Tolerance, 8 Parts: 56nH-220nH, +/-2%
sl_cft_0805CS_J_19950814	CoilCraft 0805CS Series, 0805 Case, J Tolerance, 8 Parts: 56nH-220nH, +/-5%
sl_cft_0805CS_K_19950814	CoilCraft 0805CS Series, 0805 Case, K Tolerance, 8 Parts: 56nH-220nH, +/-10%
sl_cft_0805CS_M_19950814	CoilCraft 0805CS Series, 0805 Case, M Tolerance, 19 Parts: 3.3nH-220nH, +/-20%

Coilcraft 1008CS Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Coilcraft 1008CS Series SMT inductors include 4 components, representing 1 case size and 4 inductance tolerances. The naming convention for these components is *sl_cft_1008CS_<tolerance code>_<extraction date>*.

where:

tolerance code = G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).
 case dimensions (length \times width) are: 0.100 inches \times .080 inches

Coilcraft 1008CS Series SMT Inductors

Component Name	Description
sl_cft_1008CS_G_19950814	CoilCraft 1008CS Series, 1008 Case, G Tolerance, 19 Parts: 56nH-1uH, +/-2%
sl_cft_1008CS_J_19950814	CoilCraft 1008CS Series, 1008 Case, J Tolerance, 27 Parts: 56nH-4.7uH, +/-5%
sl_cft_1008CS_K_19950814	CoilCraft 1008CS Series, 1008 Case, K Tolerance, 27 Parts: 56nH-4.7uH, +/-10%
sl_cft_1008CS_M_19950814	CoilCraft 1008CS Series, 1008 Case, M Tolerance, 38 Parts: 4.7nH-4.7uH, +/-20%

Dale IMC1210 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Dale IMC1210 inductors are used for applications that include cellular phones, pagers, base stations, and mobile stations.

The Dale IMC1210 inductors include 2 inductance tolerances. The naming convention for these components is *sl_dal_IMC1210_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$) or M ($\pm 20\%$).
 case dimensions (length \times width) are: 0.126 inches \times .098 inches

Dale IMC1210 Series SMT Inductors

Component Name	Description
sl_dal_IMC1210_K_19960828	Dale IMC1210 Series, 1210 Case, K Tolerance, 25 Parts: 1uH-100uH, +/-10%
sl_dal_IMC1210_M_19960828	Dale IMC1210 Series, 1210 Case, M Tolerance, 24 Parts: 10nH-820nH, +/-20%

Dale IMC1812 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Dale IMC1812 inductors are used for applications that include cellular phones, pagers, base stations, and mobile stations.

The Dale IMC1812 inductors include 2 inductance tolerances. The naming convention for these components is *sl_dal_IMC1812_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$) or M ($\pm 20\%$).

Advanced Design System 2011.01 - Vendor Component Libraries - RF Passive SMT Library
case dimensions (length × width) are: 0.177 inches × .126 inches

Dale IMC1812 Series SMT Inductors

Component Name	Description
sl_dal_IMC1812_K_19960828	Dale IMC1812 Series, 1812 Case, K Tolerance, 41 Parts: 470nH-1mH, +/-10%
sl_dal_IMC1812_M_19960828	Dale IMC1812 Series, 1812 Case, M Tolerance, 19 Parts: 10nH-390nH, +/-20%

Dale ISC1210 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Dale ISC1210 inductors are used for applications that include cellular phones, pagers, base stations, and mobile stations.

The Dale ISC1210 inductors include 2 inductance tolerances. The naming convention for these components is *sl_dal_ISC1210_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$) or M ($\pm 20\%$).

case dimensions (length × width) are: 0.126 inches × .098 inches

Dale ISC1210 Series SMT Inductors

Component Name	Description
sl_dal_ISC1210_K_19960828	Dale ISC1210 Series, 1210 Case, K Tolerance, 25 Parts: 1uH-100uH, +/-10%
sl_dal_ISC1210_M_19960828	Dale ISC1210 Series, 1210 Case, M Tolerance, 24 Parts: 10nH-820nH, +/-20%

Dale ISC1812 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Dale ISC1812 inductors are used for applications that include cellular phones, pagers, base stations, and mobile stations.

The Dale ISC1812 inductors include 2 inductance tolerances. The naming convention for these components is *sl_dal_ISC1812_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$) or M ($\pm 20\%$).

case dimensions (length × width) are: 0.177 inches × .126 inches

Dale ISC1812 Series SMT Inductors

Component Name	Description
sl_dal_ISC1812_K_19960828	Dale ISC1812 Series, 1812 Case, K Tolerance, 25 Parts: 10uH-1mH, +/-10%
sl_dal_ISC1812_M_19960828	Dale ISC1812 Series, 1812 Case, M Tolerance, 24 Parts: 100nH-8.2uH, +/-20%

Ecliptek EC1210 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Ecliptek EC1210 inductors are used for applications that include wireless LANs, GPS, cellular phones, pagers, base stations, and satellite receivers.

The Ecliptek EC1210 inductors include 2 inductance tolerances. The naming convention for these components is *sl_ecl_EC1210_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$) or M ($\pm 20\%$).

case dimensions (length \times width) are: 0.126 inches \times .098 inches

Ecliptek EC1210 Series SMT Inductors

Component Name	Description
sl_ecl_EC1210_K_19960828	Ecliptek EC1210 Series, 1210 Case, K Tolerance, 53 Parts: 10nH-220uH, +/- 10%
sl_ecl_EC1210_M_19960828	Ecliptek EC1210 Series, 1210 Case, M Tolerance, 1 Parts: 5nH, +/-20%

Ecliptek EC1812 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Ecliptek EC1812 inductors are used for applications that include wireless LANs, GPS, cellular phones, pagers, base stations, and satellite receivers.

The Ecliptek EC1812 inductors include 2 inductance tolerances. The naming convention for these components is *sl_ecl_EC1812_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$) or M ($\pm 20\%$).

case dimensions (length \times width) are: 0.177 inches \times .126 inches

Ecliptek EC1812 Series SMT Inductors

Component Name	Description
sl_ecl_EC1812_K_19960828	Ecliptek EC1812 Series, 1812 Case, K Tolerance, 23 Parts: 3.3uH-220uH, +/- 10%
sl_ecl_EC1812_M_19960828	Ecliptek EC1812 Series, 1812 Case, M Tolerance, 14 Parts: 220nH-2.7uH, +/- 20%

J. W. Miller PM20 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The J. W. Miller PM20 Series SMT Inductors include 2 components, representing 1 case style and 2 inductance tolerances. The naming convention for these components is

sl_jwm_PM20_<tolerance code>_<extraction date>.

where:

tolerance code = K ($\pm 10\%$) or M ($\pm 20\%$).

case dimensions (length \times width) are: 0.120 inches \times .100 inches

J. W. Miller PM20 Series SMT Inductors

Component Name	Description
sl_jwm_PM20_K_19950814	J.W. Miller PM20 Series, 1210 Case, K Tolerance, 29 Parts: 1uH-220uH, +/-10%
sl_jwm_PM20_M_19950814	J.W. Miller PM20 Series, 1210 Case, M Tolerance, 24 Parts: 10nH-820nH, +/-20%

J. W. Miller PM20S Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The J. W. Miller PM20S Series SMT Inductors include 2 inductance tolerances. The naming convention for these components is *sl_jwm_PM20S_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$) or M ($\pm 20\%$).

case dimensions (length \times width) are: 0.126 inches \times .098 inches

J. W. Miller PM20S Series SMT Inductors

Component Name	Description
sl_jwm_PM20S_K_19960828	J. W. Miller PM20S Series, 20S Case, K Tolerance, 29 Parts: 1uH-220uH, +/-10%
sl_jwm_PM20S_M_19960828	J. W. Miller PM20S Series, 20S Case, M Tolerance, 12 Parts: 100nH-820nH, +/-20%

KOA KL32 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The KOA KL32 inductors are used for applications that include cellular phones, pagers, mobile stations, and base stations.

The KOA KL32 inductors include 3 inductance tolerances. The naming convention for these components is *sl_koa_KL32_<tolerance code>_<extraction date>*.

where:

tolerance code = J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).

case dimensions (length \times width) are: 0.126 inches \times .098 inches

KOA KL32 Series SMT Inductors

Component Name	Description
sl_koa_KL32_J_19960828	KOA KL32 Series, 32 Case, J Tolerance, 47 Parts: 33nH-220uH, +/-5%
sl_koa_KL32_K_19960828	KOA KL32 Series, 32 Case, K Tolerance, 53 Parts: 10nH-220uH, +/-10%
sl_koa_KL32_M_19960828	KOA KL32 Series, 32 Case, M Tolerance, 25 Parts: 5nH-820nH, +/-20%

Piconics PA Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Piconics PA Series SMT Inductors include 1 component, representing a single case style and inductance tolerance. The naming convention for the component is *sl_pic_PA_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$).

case dimensions (length \times width) are: 0.100 inches \times .100 inches

Piconics PA Series SMT Inductors

Component Name	Description
sl_pic_PA_K_19950814	Piconics PA Series, Diallyl Phthalate Case, K Tolerance, 49 Parts: 10nH-100uH, +/-10%

Piconics PG Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Piconics PG Series SMT Inductors include 1 component, representing a single case style and inductance tolerance. The naming convention for the component is *sl_pic_PG_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$).

case dimensions (length \times width) are: 0.160 inches \times .125 inches

Piconics PG Series SMT Inductors

Component Name	Description
sl_pic_PG_K_19950814	Piconics PG Series, Diallyl Phthalate Case, K Tolerance, 49 Parts: 10nH-100uH, +/-10%

Piconics PK Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Piconics PK Series SMT Inductors include 1 component, representing a single case style and inductance tolerance. The naming convention for the component is *sl_pic_PK_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$).

case dimensions (length \times width) are: 0.160 inches \times .125 inches

Piconics PK Series SMT Inductors

Component Name	Description
sl_pic_PK_K_19950814	Piconics PK Series, Black Epoxy Case, K Tolerance, 49 Parts: 10nH-100uH, +/-10%

Sprague Goodman GLA Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Sprague Goodman GLA inductors are used for applications that include cellular phones and pagers.

The Sprague Goodman GLA inductors include 2 inductance tolerances. The naming convention for these components is *sl_spg_GLA_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$) or M ($\pm 20\%$).

case dimensions (length \times width) are: 0.126 inches \times .098 inches

Sprague Goodman GLA Series SMT Inductors

Component Name	Description
sl_spg_GLA_K_19960828	Sprague_Goodman GLA Series, GLA Case, K Tolerance, 5 Parts: 10uH-22uH, +/-10%
sl_spg_GLA_M_19960828	Sprague_Goodman GLA Series, GLA Case, M Tolerance, 20 Parts: 220nH-8.2uH, +/-20%

Sprague Goodman GLU Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The Sprague Goodman GLU inductors are used for applications that include cellular phones and pagers.

The Sprague Goodman GLU inductors include 2 inductance tolerances. The naming convention for these components is *sl_spg_GLU_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$) or M ($\pm 20\%$).

case dimensions (length \times width) are: 0.098 inches \times .079 inches

Sprague Goodman GLU Series SMT Inductors

Component Name	Description
sl_spg_GLU_K_19960828	Sprague_Goodman GLU Series, GLU Case, K Tolerance, 5 Parts: 220nH-470nH, +/-10%
sl_spg_GLU_M_19960828	Sprague_Goodman GLU Series, GLU Case, M Tolerance, 16 Parts: 10nH-180nH, +/-20%

TDK NL252018 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The TDK NL252018 inductors are used for applications that include TV tuners, mobile telephones, and radio equipment.

The TDK NL252018 inductors include 2 inductance tolerances. The naming convention for these components is *sl_tdk_NL252018_<tolerance code>_<extraction date>*.

where:

tolerance code = K ($\pm 10\%$) or M ($\pm 20\%$).

case dimensions (length \times width) are: 0.098 inches \times .079 inches

TDK NL252018 Series SMT Inductors

Component Name	Description
sl_tdk_NL252018_K_19960828	TDK NL252018 Series, 252018 Case, K Tolerance, 13 Parts: 10nH-100nH, +/-10%
sl_tdk_NL252018_M_19960828	TDK NL252018 Series, 252018 Case, M Tolerance, 13 Parts: 10nH-100nH, +/-20%

TDK NLU201205 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The TDK NLU201205 inductors are used for applications that include cordless and cellular phones, satellite TV tuners and modulators, and antenna circuitry.

The TDK NLU201205 inductors include 2 inductance tolerances. The naming convention for these components is *sl_tdk_NLU201205_<tolerance code>_<extraction date>*.

where:

tolerance code = C (± 0.2 nH) or G ($\pm 2\%$).

case dimensions (length \times width) are: 0.080 inches \times .049 inches

TDK NLU201205 Series SMT Inductors

Component Name	Description
sl_tdk_NLU201205_C_19960828	TDK NLU201205 Series, 201205 Case, C Tolerance, 9 Parts: 2.1nH-8.9nH, +/-0.2nH
sl_tdk_NLU201205_G_19960828	TDK NLU201205 Series, 201205 Case, G Tolerance, 9 Parts: 10nH-54nH, +/-2%

TDK NLS201208 Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The TDK NLS201208 inductors are used for applications that include cordless and cellular phones, satellite TV tuners and modulators.

The TDK NLS201208 inductors include 2 inductance tolerances. The naming convention for these components is *sl_tdk_NLS201208_<tolerance code>_<extraction date>*.

where:

tolerance code = D (± 0.5 nH) or J ($\pm 5\%$).

case dimensions (length \times width) are: 0.079 inches \times .049 inches

TDK NLS201208 Series SMT Inductors

Component Name	Description
sl_tdk_NLS201208_D_19960828	TDK NLS201208 Series, 201208 Case, D Tolerance, 8 Parts: 2nH-9nH, +/- 0.5nH
sl_tdk_NLS201208_J_19960828	TDK NLS201208 Series, 201208 Case, J Tolerance, 5 Parts: 10nH-21nH, +/-5%

TOKO LL1608-F Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The TOKO LL1608-F inductors are used for applications that include cellular phones, RF LANs, CT2, GPS, and DBS receivers, pagers, 900 MHz cordless phones, earth station satellite receivers, personal communications systems, land mobile radio, and cellular base stations.

The TOKO LL1608-F inductors include 4 components, representing 1 case style and 3 inductance tolerances. The naming convention for these components is *sl_tok_LL 1608F_<tolerance code>_<extraction date>*.

where:

tolerance code = S (± 0.3 nH), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).

case dimensions (length \times width) are 1.6 mm \times 0.8 mm (0.063 inches \times 0.032 inches)

TOKO LL1608-F Series SMT Inductors

Component Name	Description
sl_tok_LL1608-F_J_19960828	TOKO LL1608-F Series, 1608 Case, J Tolerance, 15 Parts: 6.8nH-100nH, +/- 5%
sl_tok_LL1608-F_K_19960828	TOKO LL1608-F Series, 1608 Case, K Tolerance, 19 Parts: 3.3nH-100nH, +/- 10%
sl_tok_LL1608-F_M_19960828	TOKO LL1608-F Series, 1608 Case, M Tolerance, 19 Parts: 3.3nH-100nH, +/- 20%
sl_tok_LL1608-F_S_19960828	TOKO LL1608-F Series, 1608 Case, S Tolerance, 9 Parts: 1.2nH-5.6nH, +/- 0.3nH

TOKO LL2012-F Series SMT Inductors

For modeling specifications, see [Schematic Design](#).

The TOKO LL2012-F inductors are used for applications that include cellular phones, RF LANs, CT2, GPS and DBS receivers, pagers, 900 MHz cordless phones, earth station satellite receivers, personal communications systems, land mobile radio, and cellular base stations.

The TOKO LL2012-F inductors include 5 components, representing 1 case style and 5 inductance tolerances. The naming convention for these components is *sl_tok_LL2012F_<tolerance code>_<extraction date>*.

where:

tolerance code = C (± 0.2 nH), S (± 0.3 nH), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$)
 case dimensions (length \times width) are: 2 mm \times 1.25 mm (0.079 inches \times 0.049 inches)

TOKO LL2012-F Series SMT Inductors

Name	Description
sl_tok_LL2012-F_C_19950814	TOKO LL2012-F Series, 2012 Case, C Tolerance, 3 Parts: 1.8nH-2.7nH, +/- 0.3nH
sl_tok_LL2012-F_J_19960828	TOKO LL2012-F Series, 2012 Case, J Tolerance, 15 Parts: 6.8nH-100nH, +/- 5%
sl_tok_LL2012-F_K_19960828	TOKO LL2012-F Series, 2012 Case, K Tolerance, 27 Parts: 3.3nH-470nH, +/- 10%
sl_tok_LL2012-F_M_19960828	TOKO LL2012-F Series, 2012 Case, M Tolerance, 27 Parts: 3.3nH-470nH, +/- 20%
sl_tok_LL2012-F_S_19960828	TOKO LL2012-F Series, 2012 Case, S Tolerance, 8 Parts: 1.5nH-5.6nH, +/- 0.3nH

SMT Resistors

The SMT Resistor Library consists of discrete-value linear models representing 226 surface mount resistors from 10 manufacturers and a continuous linear passive models from one manufacturer. The models were extracted from data provided by these manufacturers.

Note
The library itself is a binary file named *SMT_ResistorLibrary.library* which can be found in *\$HPEESOF_DIR/ComponentLibs/models*.

The SMT resistor library groups available for selection from the Schematic and Layout windows are:

- [AVX CR Series SMT Resistors](#)
- [Beckman Industrial BCR Series SMT Resistors](#)
- [Dale CRCW Series SMT Resistors](#)
- [Dale RCWP Series SMT Resistors](#)
- [Florida RF Labs 81 Series SMT Resistors](#)
- [IMS RC-4 Series SMT Resistors](#)
- [IMS RC-C Series SMT Resistors](#)
- [IMS RC-I Series SMT Resistors](#)
- [IMS TP-I Series SMT Resistors](#)
- [IRC CHF Series SMT Resistors](#)
- [IRC CR Series SMT Resistors](#)
- [Kamaya RGC Series SMT Resistors](#)
- [Kamaya RMC Series SMT Resistors](#)
- [Kamaya RNC Series SMT Resistors](#)
- [KDI/Triangle NMC Series SMT Resistors](#)
- [KDI/Triangle NPC Series SMT Resistors](#)
- [State of the Art SCPX Series SMT Resistors](#)
- [TFT RR Series SMT Resistors](#)

Schematic Design

This section describes the schematic design of the SMT resistor library components and specifies the simulation models that are incorporated in the design.

Continuous Resistance Parts

[Continuous Valued SMT Resistor Schematic Component Example](#) shows how an SMT resistor component with continuous valued resistance appears when placed into the Schematic design window. The annotation consists of the component name, the default component ID prefix (in this case, R), the component parameter, PART_NUM, the SMT_Pad, and OFFSET parameters which are used for layout generation only.

To perform layout generation based on required footprint parameters, it is important to include an SMT_Pad data component in the schematic and specify the foot print parameters in that instance of SMT_Pad. Otherwise, default dimensions of SMT_Pad data component are used during layout generation.

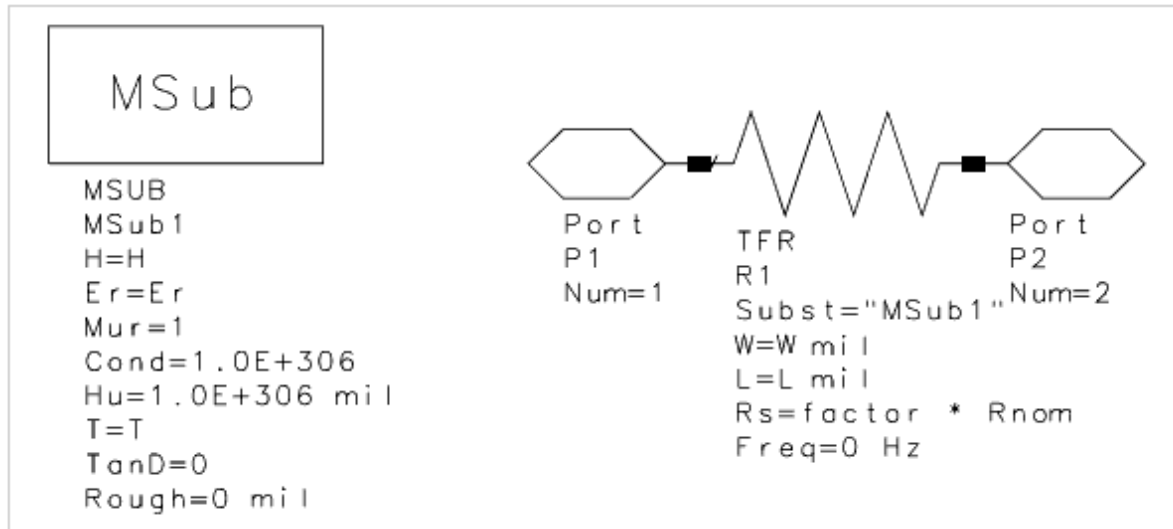


Continuous Valued SMT Resistor Schematic Component Example

The *label* field appearing at the top of the component parameter dialog box contains the selected component label.

The SMT resistor component represents an equivalent circuit model embedded within the netlist of the schematic design.

The continuous valued SMT resistor component represents an equivalent circuit model of a thick film resistor. The TFR is associated with an MSUB data component. The single formal parameter of the subnetwork, Rnom, serves as an argument for sheet resistivity, Rs. The parameters of the TFR and MSUB components are provided by the library. Discrete-value optimization is not supported for continuous valued resistor components. An example of such a design is shown in [Continuous Valued SMT Resistor Equivalent Circuit Model Schematic Design](#).



Continuous Valued SMT Resistor Equivalent Circuit Model Schematic Design

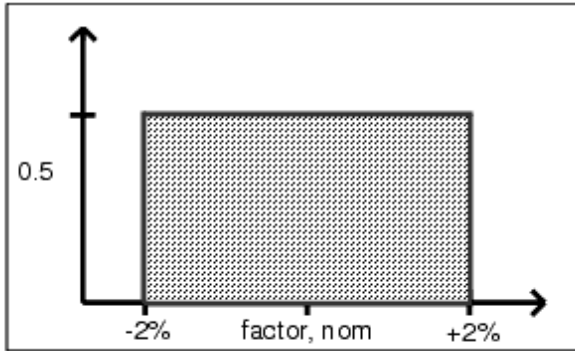
The parameters of the TFR resistor model are:

- W: The width of the TFR component, in length units
- L: The length of the TFR component, in length units
- factor: The factor used to calculate sheet resistivity, R_s from the resistance, R_{nom}

The parameters of the MSUB component associated with the Continuous Resistor model are provided by the library. These are:

- Er: The substrate dielectric constant of the MSUB component
- H: The substrate height of the MSUB component, in length units
- T: The metal thickness of the MSUB component, in length units
- factor: The factor used to calculate sheet resistivity, R_s from the resistance, R

All continuous valued resistor components supported in library employ uniform distributions of the nominal resistivity *factor* value. The height of the uniform probability density function is equal to 1. A graphical example of a PDF is shown in [Continuous Valued SMT Resistor Library Probability Density Function Example](#). In this example, the manufacturer group offers 2% parts. Customers ordering 2% parts will receive only resistance values falling between $0.98 \cdot R_{nom}$ and $1.02 \cdot R_{nom}$. Because the sheet resistivity, R_s , is calculated as the product of factor and R , the 2% distribution is attributed instead to the factor data in the discrete-value file.

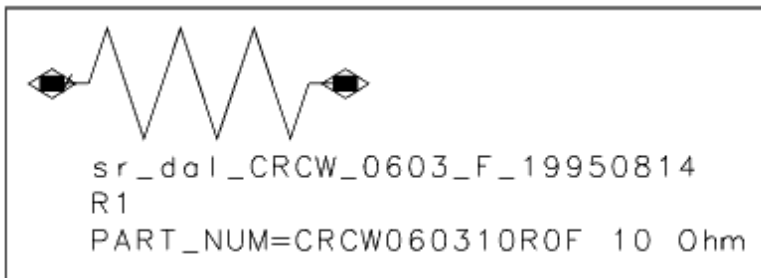


Continuous Valued SMT Resistor Library Probability Density Function Example

Discrete-Value Resistance Parts

[Discrete-Value SMT Resistor Schematic Component Example](#) shows how an SMT Resistor component with discrete-value resistance appears when placed into the Schematic design window. The annotation consists of the component name, the default component ID prefix (in this case, R), and the component parameter, PART_NUM, the SMT_Pad and OFFSET parameters which are used for layout generation only.

To perform layout generation based on required footprint parameters, it is important to include an SMT_Pad data component in the schematic and specify the footprint parameters in that instance of SMT_Pad. Otherwise, default dimensions of SMT_Pad data component are used during layout generation.



Discrete-Value SMT Resistor Schematic Component Example

Each resistor library component represents a series of discrete parts from a single manufacturer with a common case style and resistance tolerance. The PART_NUM parameter is used to identify a specific vendor part in the selected component. In the Component Parameter dialog box, the Parameter Entry Model option button for the PART_NUM parameter contains each vendor discrete part attributable to the selected component. This option button also includes options for Discrete-Value Optimization and assignment to a specified Variable.

Caution
In the Variable Part Index assignment, you assign the index number (not the nominal value) to the PART_NUM parameter.

For example, [Discrete-Value Optimization Variables](#) lists the Parameter Entry Mode options (representing 480 parts ranging from 10 Ohm to 1 MOhm) for the sr_dal_CRCW_0603_F_19950814 component PART_NUM parameter.

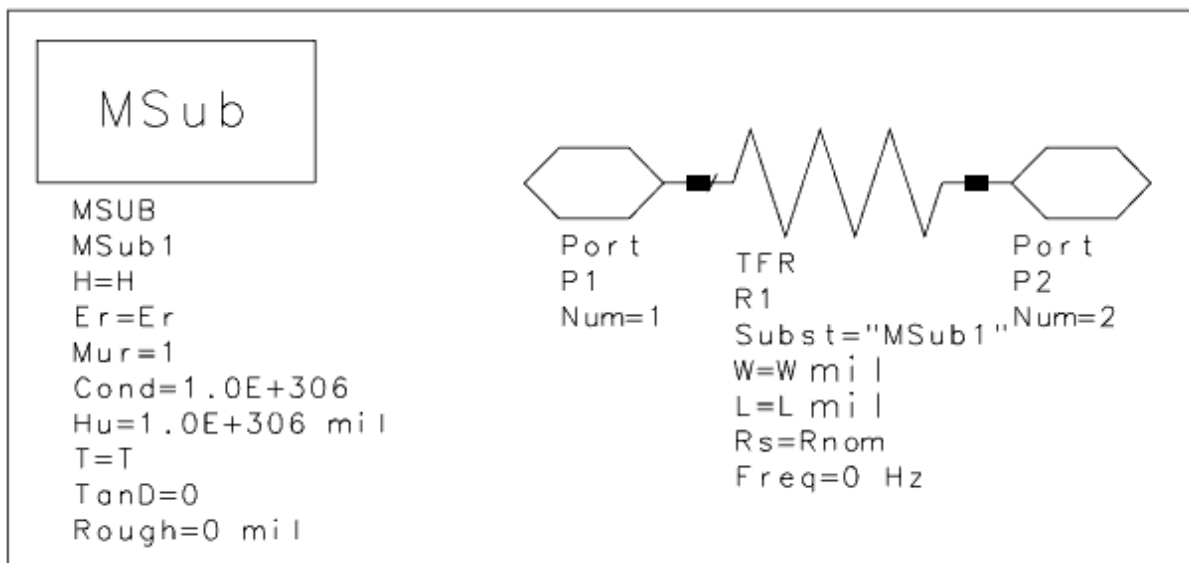
Discrete-Value Optimization Variables

Discrete-Value Optimization Variables

Parameter Entry Mode	Nominal Value
Discrete Optimize	(does not apply)
Variable	(does not apply)
CRCW060310R0F	10.0 Ohm
CRCW060310R2F	10.2 Ohm
CRCW060310R5F	10.5 Ohm
... etc. for all resistor components ...	
CRCW06039533F	953 KOhm
CRCW06039763F	976 KOhm
CRCW06031004F	1.0 MOhm

The label field appearing at the top of the component parameter dialog box contains the selected component label.

The discrete-value SMT resistor component represents an equivalent circuit model embedded within the netlist of the schematic design. An example of such an equivalent is shown in [Discrete-Value SMT Resistor Equivalent Circuit Model Schematic Design](#).

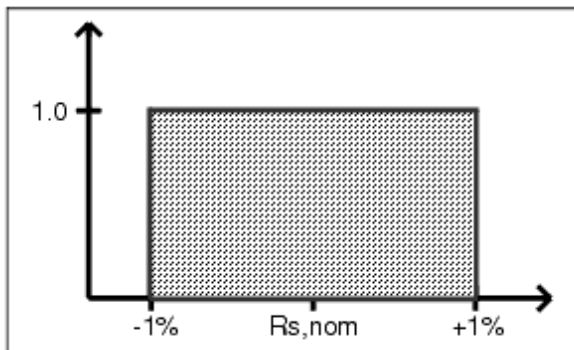


Discrete-Value SMT Resistor Equivalent Circuit Model Schematic Design

The equivalent circuit model is comprised of components described in [Discrete-Value SMT Resistor Library Probability Density Function Example](#). For the above model the values of the parameters of TFR and MSUB are:

- W: The width of the TFR component, in length units
- L: The length of the TFR component, in length units
- Rs: The sheet resistivity of the TFR component, in resistance units per square
- Er: The substrate dielectric constant of the MSUB component
- H: The substrate height of the MSUB component, in length units
- T: The metal thickness of the MSUB component, in length units

Most of the discrete-value resistor components supported in this library employ *uniform distributions* of the nominal resistivity value. The height of the uniform probability density function is equal to 1. A graphical example of a PDF is shown in [Discrete-Value SMT Resistor Library Probability Density Function Example](#). In this example, the manufacturer group offers 1% parts. Customers ordering 1% parts will only receive resistance values falling between $0.99 \cdot R_{nom}$ and $1.01 \cdot R_{nom}$. Because the sheet resistivity, R_s , is linearly proportional to the resistance, the 1% distribution is directly attributed to the R_s data in the discrete-value file.

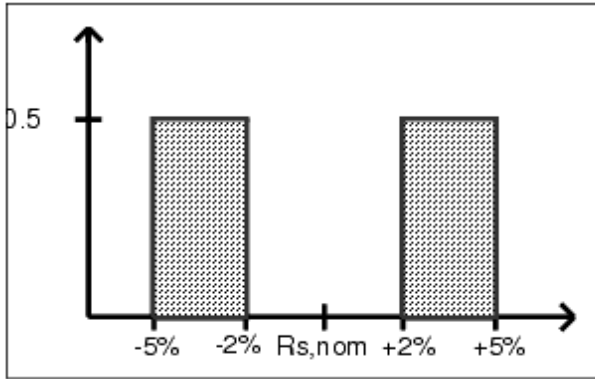
**Discrete-Value SMT Resistor Library Probability Density Function Example**

Some of the manufacturers of discrete-value components in this library employ *bimodal distributions* of the nominal resistivity value. For parts that represent the tightest tolerance available from the manufacturer, the associated PDF for the resistivity is represented by a uniform distribution, centered at the nominal resistivity value and with width of plus or minus the tolerance associated with the model group components. The height of the uniform probability density function is equal to 1. Model group components that represent parts with looser tolerances employ bimodal probability density functions, representing a uniform distribution for the specified tolerance minus the PDF associated with the next smaller tolerance.

The reason for the bimodal PDF is that the manufacturer has pre-selected the higher tolerance parts and the probability that the customer will receive a part within the tighter tolerance range is zero. In all cases, uniform distributions of the density functions were chosen to approximate the gaussian manufacturing process, since the standard deviations of the process are not available to EEs of. The uniform approximation will yield more

pessimistic (conservative) yield estimates than the true gaussian distributions, if ones were available. A graphical example of a PDF is shown in [SMT Resistor Library Probability Density Function Example](#). In this example, the manufacturer group offers 1%, 2%, 5%, and 10% parts.

Customers ordering 5% parts will receive only resistivity values falling between $0.95 \cdot R_{s,nom}$ to $0.98 \cdot R_{s,nom}$ or between $1.02 \cdot R_{s,nom}$ to $1.05 \cdot R_{s,nom}$.



SMT Resistor Library Probability Density Function Example

AVX CR Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The VX CR Series SMT Resistors include 12 components, representing 4 case styles in 4 resistance tolerances. The naming convention for these components is *sr_avx_CR _<case style>_<tolerance code>_<extraction date>*.

where:

case style = 05 (0402), 10 (0603), 21 (0805), or 32 (1206)
 tolerance code = F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), or K ($\pm 10\%$)

case dimensions (length \times width) are:

05: .040 inches \times .020 inches
 10: .060 inches \times .030 inches
 21: .080 inches \times .050 inches
 32: .120 inches \times .060 inches

The schematic design model for the AVX CR Series SMT resistors is given by the Discrete-Value Resistance model. The statistics of this series is represented as a Uniform Distribution Function.

AVX CR Series SMT Resistors

Component Name	Description
sr_avx_CR_05_J_19960828	AVX CR Series, 05 Case, J Tolerance, 145 Parts: 2.2Ohm-2.2MOhm, +/-5%
sr_avx_CR_10_F_19960828	AVX CR Series, 10 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_avx_CR_10_J_19960828	AVX CR Series, 10 Case, J Tolerance, 129 Parts: 10Ohm-2.2MOhm, +/-5%
sr_avx_CR_10_K_19960828	AVX CR Series, 10 Case, K Tolerance, 161 Parts: 2.2Ohm-10MOhm, +/-10%
sr_avx_CR_21_F_19960828	AVX CR Series, 21 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_avx_CR_21_G_19960828	AVX CR Series, 21 Case, G Tolerance, 129 Parts: 10Ohm-2.2MOhm, +/-2%
sr_avx_CR_21_J_19960828	AVX CR Series, 21 Case, J Tolerance, 145 Parts: 10Ohm-10MOhm, +/-5%
sr_avx_CR_21_K_19960828	AVX CR Series, 21 Case, K Tolerance, 161 Parts: 2.2Ohm-10MOhm, +/-10%
sr_avx_CR_32_F_19960828	AVX CR Series, 32 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_avx_CR_32_G_19960828	AVX CR Series, 32 Case, G Tolerance, 129 Parts: 10Ohm-2.2MOhm, +/-2%
sr_avx_CR_32_J_19960828	AVX CR Series, 32 Case, J Tolerance, 145 Parts: 10Ohm-10MOhm, +/-5%
sr_avx_CR_32_K_19960828	AVX CR Series, 32 Case, K Tolerance, 161 Parts: 2.2Ohm-10MOhm, +/-10%

Beckman Industrial BCR Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The Beckman Industrial BCR Series SMT Resistors include 20 components, representing 5 case styles in 4 resistance tolerances. The naming convention for these components is *sr_bkm_BCR_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 1-16 (0603), 1-10 (0805), 1-8 (1206), 1-4 (1210), or 1-2 (2010)
tolerance code = D ($\pm 0.5\%$), F ($\pm 1\%$), G ($\pm 2\%$), or J ($\pm 5\%$).

case dimensions (length \times width) are:

1-16: 0.063 inches \times 0.031 inches
1-10: 0.079 inches \times 0.049 inches
1-8: 0.122 inches \times 0.061 inches
1-4: 0.122 inches \times 0.100 inches
1-2: 0.197 inches \times 0.098 inches

The schematic design model for the Beckman Industrial BCR Series SMT resistors is given by the Discrete-Value Resistance model.

Beckman Industrial BCR Series SMT Resistors

The statistics of these series is represented as a Uniform Distribution Function.

Component Name	Description
sr_bkm_BCR_1-10_D_19960828	Beckman Industrial BCR Series, 1-10 Case, D Tolerance, 481 Parts: 100hm-1M0hm, +/-0.5%
sr_bkm_BCR_1-10_F_19960828	Beckman Industrial BCR Series, 1-10 Case, F Tolerance, 481 Parts: 100hm-1M0hm, +/-1%
sr_bkm_BCR_1-10_G_19960828	Beckman Industrial BCR Series, 1-10 Case, G Tolerance, 121 Parts: 100hm-1M0hm, +/-2%
sr_bkm_BCR_1-10_J_19960828	Beckman Industrial BCR Series, 1-10 Case, J Tolerance, 121 Parts: 100hm-1M0hm, +/-5%
sr_bkm_BCR_1-16_D_19960828	Beckman Industrial BCR Series, 1-16 Case, D Tolerance, 481 Parts: 100hm-1M0hm, +/-0.5%
sr_bkm_BCR_1-16_F_19960828	Beckman Industrial BCR Series, 1-16 Case, F Tolerance, 481 Parts: 100hm-1M0hm, +/-1%
sr_bkm_BCR_1-16_G_19960828	Beckman Industrial BCR Series, 1-16 Case, G Tolerance, 121 Parts: 100hm-1M0hm, +/-2%
sr_bkm_BCR_1-16_J_19960828	Beckman Industrial BCR Series, 1-16 Case, J Tolerance, 121 Parts: 100hm-1M0hm, +/-5%
sr_bkm_BCR_1-2_D_19960828	Beckman Industrial BCR Series, 1-2 Case, D Tolerance, 481 Parts: 100hm-1M0hm, +/-0.5%
sr_bkm_BCR_1-2_F_19960828	Beckman Industrial BCR Series, 1-2 Case, F Tolerance, 481 Parts: 100hm-1M0hm, +/-1%
sr_bkm_BCR_1-2_G_19960828	Beckman Industrial BCR Series, 1-2 Case, G Tolerance, 121 Parts: 100hm-1M0hm, +/-2%
sr_bkm_BCR_1-2_J_19960828	Beckman Industrial BCR Series, 1-2 Case, J Tolerance, 121 Parts: 100hm-1M0hm, +/-5%
sr_bkm_BCR_1-4_D_19960828	Beckman Industrial BCR Series, 1-4 Case, D Tolerance, 481 Parts: 100hm-1M0hm, +/-0.5%
sr_bkm_BCR_1-4_F_19960828	Beckman Industrial BCR Series, 1-4 Case, F Tolerance, 481 Parts: 100hm-1M0hm, +/-1%
sr_bkm_BCR_1-4_G_19960828	Beckman Industrial BCR Series, 1-4 Case, G Tolerance, 121 Parts: 100hm-1M0hm, +/-2%
sr_bkm_BCR_1-4_J_19960828	Beckman Industrial BCR Series, 1-4 Case, J Tolerance, 121 Parts: 100hm-1M0hm, +/-5%
sr_bkm_BCR_1-8_D_19960828	Beckman Industrial BCR Series, 1-8 Case, D Tolerance, 481 Parts: 100hm-1M0hm, +/-0.5%
sr_bkm_BCR_1-8_F_19960828	Beckman Industrial BCR Series, 1-8 Case, F Tolerance, 481 Parts: 100hm-1M0hm, +/-1%
sr_bkm_BCR_1-8_G_19960828	Beckman Industrial BCR Series, 1-8 Case, G Tolerance, 121 Parts: 100hm-1M0hm, +/-2%
sr_bkm_BCR_1-8_J_19960828	Beckman Industrial BCR Series, 1-8 Case, J Tolerance, 121 Parts: 100hm-1M0hm, +/-5%

Dale CRCW Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The Dale CRCW Series SMT Resistors include 6 components, representing 3 case styles in 2 resistance tolerances. The naming convention for these components is *sr_dal_CRCW_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 0603, 0805, or 1206
tolerance code = F ($\pm 1\%$) or J ($\pm 5\%$).

case dimensions (length \times width) are:

0603: .063 inches \times .031 inches
0805: .079 inches \times .049 inches
1206: .126 inches \times .063 inches

The schematic design model for the Dale CRCW Series SMT resistors is given by the Discrete-Value Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

Dale CRCW Series SMT Resistors

Component Name	Description
sr_dal_CRCW_0603_F_19950814	Dale CRCW Series, 0603 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_dal_CRCW_0603_J_19950814	Dale CRCW Series, 0603 Case, J Tolerance, 121 Parts: 10Ohm-1MOhm, +/-5%
sr_dal_CRCW_0805_F_19950814	Dale CRCW Series, 0805 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_dal_CRCW_0805_J_19950814	Dale CRCW Series, 0805 Case, J Tolerance, 121 Parts: 10Ohm-1MOhm, +/-5%
sr_dal_CRCW_1206_F_19950814	Dale CRCW Series, 1206 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_dal_CRCW_1206_J_19950814	Dale CRCW Series, 1206 Case, J Tolerance, 129 Parts: 10Ohm-2.2MOhm, +/-5%

Dale RCWP Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The Dale RCWP Series SMT Resistors include 35 components, representing 7 case styles in 5 resistance tolerances. The naming convention for these components is *sr_dal_RCWP_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 540, 550, 575, 1100, 1206, 5100, or 5150
and tolerance code = F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).

The case dimensions (length \times width) are:

540: .055 inches \times .040 inches
550: .055 inches \times .050 inches
575: .080 inches \times .050 inches
1100: .105 inches \times .100 inches
1206: .125 inches \times .060 inches

5100: .105 inches × .050 inches

5150: .155 inches × .050 inches

The schematic design model for the Dale RCWP Series SMT resistors is given by the Discrete-Value Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

Dale RCWP Series SMT Resistors

Component Name	Description
sr_dal_RCWP_1100_F_19950814	Dale RCWP Series, 1100 Case, F Tolerance, 548 Parts: 100Ohm-4.99MOhm, +/-1%
sr_dal_RCWP_1100_G_19950814	Dale RCWP Series, 1100 Case, G Tolerance, 138 Parts: 100Ohm-5.1MOhm, +/-2%
sr_dal_RCWP_1100_J_19950814	Dale RCWP Series, 1100 Case, J Tolerance, 149 Parts: 5.10hm-7.5MOhm, +/-5%
sr_dal_RCWP_1100_K_19950814	Dale RCWP Series, 1100 Case, K Tolerance, 74 Parts: 5.60hm-6.8MOhm, +/-10%
sr_dal_RCWP_1100_M_19950814	Dale RCWP Series, 1100 Case, M Tolerance, 74 Parts: 5.60hm-6.8MOhm, +/-20%
sr_dal_RCWP_1206_F_19950814	Dale RCWP Series, 1206 Case, F Tolerance, 548 Parts: 100Ohm-4.99MOhm, +/-1%
sr_dal_RCWP_1206_G_19950814	Dale RCWP Series, 1206 Case, G Tolerance, 138 Parts: 100Ohm-5.1MOhm, +/-2%
sr_dal_RCWP_1206_J_19950814	Dale RCWP Series, 1206 Case, J Tolerance, 145 Parts: 100Ohm-10MOhm, +/-5%
sr_dal_RCWP_1206_K_19950814	Dale RCWP Series, 1206 Case, K Tolerance, 73 Parts: 100Ohm-10MOhm, +/-10%
sr_dal_RCWP_1206_M_19950814	Dale RCWP Series, 1206 Case, M Tolerance, 73 Parts: 100Ohm-10MOhm, +/-20%
sr_dal_RCWP_5100_F_19950814	Dale RCWP Series, 5100 Case, F Tolerance, 548 Parts: 100Ohm-4.99MOhm, +/-1%
sr_dal_RCWP_5100_G_19950814	Dale RCWP Series, 5100 Case, G Tolerance, 138 Parts: 100Ohm-5.1MOhm, +/-2%
sr_dal_RCWP_5100_J_19950814	Dale RCWP Series, 5100 Case, J Tolerance, 149 Parts: 100Ohm-15MOhm, +/-5%
sr_dal_RCWP_5100_K_19950814	Dale RCWP Series, 5100 Case, K Tolerance, 75 Parts: 100Ohm-15MOhm, +/-10%
sr_dal_RCWP_5100_M_19950814	Dale RCWP Series, 5100 Case, M Tolerance, 75 Parts: 100Ohm-15MOhm, +/-20%
sr_dal_RCWP_5150_F_19950814	Dale RCWP Series, 5150 Case, F Tolerance, 548 Parts: 100Ohm-4.99MOhm, +/-1%
sr_dal_RCWP_5150_G_19950814	Dale RCWP Series, 5150 Case, G Tolerance, 138 Parts: 100Ohm-5.1MOhm, +/-2%
sr_dal_RCWP_5150_J_19950814	Dale RCWP Series, 5150 Case, J Tolerance, 149 Parts: 100Ohm-15MOhm, +/-5%
sr_dal_RCWP_5150_K_19950814	Dale RCWP Series, 5150 Case, K Tolerance, 75 Parts: 100Ohm-15MOhm, +/-10%
sr_dal_RCWP_5150_M_19950814	Dale RCWP Series, 5150 Case, M Tolerance, 75 Parts: 100Ohm-15MOhm, +/-20%

sr_dal_RCWP_540_F_19950814	Dale RCWP Series, 540 Case, F Tolerance, 539 Parts: 4.99Ohm-2MOhm, +/-1%
sr_dal_RCWP_540_G_19950814	Dale RCWP Series, 540 Case, G Tolerance, 144 Parts: 5.1Ohm-4.7MOhm, +/-2%
sr_dal_RCWP_540_J_19950814	Dale RCWP Series, 540 Case, J Tolerance, 144 Parts: 5.1Ohm-4.7MOhm, +/-5%
sr_dal_RCWP_540_K_19950814	Dale RCWP Series, 540 Case, K Tolerance, 72 Parts: 5.6Ohm-4.7MOhm, +/-10%
sr_dal_RCWP_540_M_19950814	Dale RCWP Series, 540 Case, M Tolerance, 72 Parts: 5.6Ohm-4.7MOhm, +/-20%
sr_dal_RCWP_550_F_19950814	Dale RCWP Series, 550 Case, F Tolerance, 539 Parts: 4.99Ohm-2MOhm, +/-1%
sr_dal_RCWP_550_G_19950814	Dale RCWP Series, 550 Case, G Tolerance, 144 Parts: 5.1Ohm-4.7MOhm, +/-2%
sr_dal_RCWP_550_J_19950814	Dale RCWP Series, 550 Case, J Tolerance, 144 Parts: 5.1Ohm-4.7MOhm, +/-5%
sr_dal_RCWP_550_K_19950814	Dale RCWP Series, 550 Case, K Tolerance, 72 Parts: 5.6Ohm-4.7MOhm, +/-10%
sr_dal_RCWP_550_M_19950814	Dale RCWP Series, 550 Case, M Tolerance, 72 Parts: 5.6Ohm-4.7MOhm, +/-20%
sr_dal_RCWP_575_F_19950814	Dale RCWP Series, 575 Case, F Tolerance, 548 Parts: 10Ohm-4.99MOhm, +/-1%
sr_dal_RCWP_575_G_19950814	Dale RCWP Series, 575 Case, G Tolerance, 138 Parts: 10Ohm-5.1MOhm, +/-2%
sr_dal_RCWP_575_J_19950814	Dale RCWP Series, 575 Case, J Tolerance, 152 Parts: 5.1Ohm-10MOhm, +/-5%
sr_dal_RCWP_575_K_19950814	Dale RCWP Series, 575 Case, K Tolerance, 76 Parts: 5.6Ohm-10MOhm, +/-10%
sr_dal_RCWP_575_M_19950814	Dale RCWP Series, 575 Case, M Tolerance, 76 Parts: 5.6Ohm-10MOhm, +/-20%

Florida RF Labs 81 Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The Florida RF Labs 81 Series SMT Resistors include 4 components, representing 4 case styles in 1 resistance tolerance. The naming convention for these components is *sr_frl_81_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 1001, 1002, 1003, or 1004
tolerance code = J ($\pm 5\%$).

case dimensions (length \times width) are:

1001: .200 inches \times .100 inches
1002: .200 inches \times .200 inches
1003: .250 inches \times .250 inches
1004: .250 inches \times .250 inches

The schematic design model for the Florida RF Labs 81 Series SMT resistors is given by the Discrete-Value Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

Florida RF Labs 81 Series SMT Resistors

Component Name	Description
sr_frl_81_1001_J_19950814	Florida_RF_Labs 81 Series, 1001 Case, J Tolerance, 2 Parts: 50Ohm-100Ohm, +/-5%
sr_frl_81_1002_J_19950814	Florida_RF_Labs 81 Series, 1002 Case, J Tolerance, 2 Parts: 50Ohm-100Ohm, +/-5%
sr_frl_81_1003_J_19950814	Florida_RF_Labs 81 Series, 1003 Case, J Tolerance, 2 Parts: 50Ohm-100Ohm, +/-5%
sr_frl_81_1004_J_19950814	Florida_RF_Labs 81 Series, 1004 Case, J Tolerance, 2 Parts: 50Ohm-100Ohm, +/-5%

IMS RC-4 Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The IMS RC-4 Series SMT resistors are have been expanded from the version 5.0 to include a new case size; the 0302.

The IMS RC-4 Series SMT Resistors include 8 components, representing 3 case styles in 3 resistance tolerances. The naming convention for these components is *sr_ims_RC4_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 0402 or 0504

tolerance code = G ($\pm 2\%$), J ($\pm 5\%$), or K ($\pm 10\%$).

case dimensions (length \times width) are:

0302: .030 inches \times .020 inches

0402: .045 inches \times .025 inches

0504: .050 inches \times .040 inches

The schematic design model for the IMS RC-4 Series SMT resistors is given by the Discrete-Value Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

IMS RC-4 Series SMT Resistors

Component Name	Description
sr_ims_RC-4_0302_J_19960828	International_Manufacturing_Services RC-4 Series, 0302 Case, J Tolerance, 140 Parts: 100hm-20MOhm, +/-5%
sr_ims_RC-4_0302_K_19960828	International_Manufacturing_Services RC-4 Series, 0302 Case, K Tolerance, 140 Parts: 100hm-20MOhm, +/-10%
sr_ims_RC-4_0402_G_19960828	International_Manufacturing_Services RC-4 Series, 0402 Case, G Tolerance, 162 Parts: 100hm-51MOhm, +/-2%
sr_ims_RC-4_0402_J_19960828	International_Manufacturing_Services RC-4 Series, 0402 Case, J Tolerance, 162 Parts: 100hm-51MOhm, +/-5%
sr_ims_RC-4_0402_K_19960828	International_Manufacturing_Services RC-4 Series, 0402 Case, K Tolerance, 94 Parts: 10hm-56MOhm, +/-10%
sr_ims_RC-4_0504_G_19960828	International_Manufacturing_Services RC-4 Series, 0504 Case, G Tolerance, 167 Parts: 100hm-82MOhm, +/-2%
sr_ims_RC-4_0504_J_19960828	International_Manufacturing_Services RC-4 Series, 0504 Case, J Tolerance, 167 Parts: 100hm-82MOhm, +/-5%
sr_ims_RC-4_0504_K_19960828	International_Manufacturing_Services RC-4 Series, 0504 Case, K Tolerance, 88 Parts: 4.70hm-82MOhm, +/-10%

IMS RC-C Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The IMS RC-C Series SMT Resistors include 3 components, representing 1 case style in 3 resistance tolerances. The naming convention for these components is *sr_ims_RC-C_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 0805

tolerance code = J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).

case dimensions (length \times width) are:

0805: .078 inches \times .050 inches

The schematic design model for the IMS RC-C Series SMT resistors is given by the Discrete-Value Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

IMS RC-C Series SMT Resistors

Component Name	Description
sr_ims_RC-C_0805_J_19950814	International_Manufacturing_Services RC-C Series, 0805 Case, J Tolerance, 193 Parts: 100hm-1GOhm, +/-5%
sr_ims_RC-C_0805_K_19950814	International_Manufacturing_Services RC-C Series, 0805 Case, K Tolerance, 97 Parts: 100hm-1GOhm, +/-10%
sr_ims_RC-C_0805_M_19950814	International_Manufacturing_Services RC-C Series, 0805 Case, M Tolerance, 97 Parts: 100hm-1GOhm, +/-20%

IMS RC-I Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The IMS RC-I Series SMT Resistors include 17 components, representing 5 case styles in 4 resistance tolerances. The naming convention for these components is *sr_ims_RC-I_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 0402, 0603, 0805, 1206, or 2010

tolerance code = F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), or K ($\pm 10\%$).

case dimensions (length \times width) are:

0402: .039 inches \times .020 inches

0603: .063 inches \times .031 inches

0805: .079 inches \times .049 inches

1206: .122 inches \times .061 inches

2010: .196 inches \times .098 inches

The schematic design model for the IMS RC-I Series SMT resistors is given by the Discrete-Value Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

IMS RC-I Series SMT Resistors

Component Name	Description
sr_ims_RC-I_0402_J_19950814	International_Manufacturing_Services RC-I Series, 0402 Case, J Tolerance, 137 Parts: 4.7Ohm-2.2MOhm, +/-5%
sr_ims_RC-I_0603_F_19950814	International_Manufacturing_Services RC-I Series, 0603 Case, F Tolerance, 570 Parts: 3.92Ohm-3.32MOhm, +/-1%
sr_ims_RC-I_0603_G_19950814	International_Manufacturing_Services RC-I Series, 0603 Case, G Tolerance, 143 Parts: 3.9Ohm-3.3MOhm, +/-2%
sr_ims_RC-I_0603_J_19950814	International_Manufacturing_Services RC-I Series, 0603 Case, J Tolerance, 143 Parts: 3.9Ohm-3.3MOhm, +/-5%
sr_ims_RC-I_0603_K_19950814	International_Manufacturing_Services RC-I Series, 0603 Case, K Tolerance, 72 Parts: 3.9Ohm-3.3MOhm, +/-10%
sr_ims_RC-I_0805_F_19950814	International_Manufacturing_Services RC-I Series, 0805 Case, F Tolerance, 577 Parts: 10Ohm-10MOhm, +/-1%
sr_ims_RC-I_0805_G_19950814	International_Manufacturing_Services RC-I Series, 0805 Case, G Tolerance, 145 Parts: 10Ohm-10MOhm, +/-2%
sr_ims_RC-I_0805_J_19950814	International_Manufacturing_Services RC-I Series, 0805 Case, J Tolerance, 169 Parts: 10Ohm-10MOhm, +/-5%
sr_ims_RC-I_0805_K_19950814	International_Manufacturing_Services RC-I Series, 0805 Case, K Tolerance, 85 Parts: 10Ohm-10MOhm, +/-10%
sr_ims_RC-I_1206_F_19950814	International_Manufacturing_Services RC-I Series, 1206 Case, F Tolerance, 610 Parts: 10Ohm-22.1MOhm, +/-1%
sr_ims_RC-I_1206_G_19950814	International_Manufacturing_Services RC-I Series, 1206 Case, G Tolerance, 153 Parts: 10Ohm-22MOhm, +/-2%
sr_ims_RC-I_1206_J_19950814	International_Manufacturing_Services RC-I Series, 1206 Case, J Tolerance, 177 Parts: 10Ohm-22MOhm, +/-5%
sr_ims_RC-I_1206_K_19950814	International_Manufacturing_Services RC-I Series, 1206 Case, K Tolerance, 97 Parts: 220mOhm-22MOhm, +/-10%
sr_ims_RC-I_2010_F_19950814	International_Manufacturing_Services RC-I Series, 2010 Case, F Tolerance, 385 Parts: 10Ohm-100kOhm, +/-1%
sr_ims_RC-I_2010_G_19950814	International_Manufacturing_Services RC-I Series, 2010 Case, G Tolerance, 97 Parts: 10Ohm-100kOhm, +/-2%
sr_ims_RC-I_2010_J_19950814	International_Manufacturing_Services RC-I Series, 2010 Case, J Tolerance, 121 Parts: 10Ohm-100kOhm, +/-5%
sr_ims_RC-I_2010_K_19950814	International_Manufacturing_Services RC-I Series, 2010 Case, K Tolerance, 61 Parts: 10Ohm-100kOhm, +/-10%

IMS TP-I Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The IMS TP-I Series SMT Resistors include 2 components, representing 1 case styles in 2 resistance tolerances. The naming convention for these components is *sr_ims_TP-I_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 0805

tolerance code = B ($\pm 0.1\%$) or D ($\pm 0.5\%$).

case dimensions (length \times width) are:

0805: .079 inches × .049 inches

The schematic design model for the IMS TP-I Series SMT resistors is given by the Discrete-Value Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

IMS TP-I Series SMT Resistors

Component Name	Description
sr_ims_TP-I_0805_B_19960828	International_Manufacturing_Services TP-I Series, 0805 Case, B Tolerance, 385 Parts: 10Ohm-100kOhm, +/-0.1Ohm
sr_ims_TP-I_0805_D_19960828	International_Manufacturing_Services TP-I Series, 0805 Case, D Tolerance, 385 Parts: 10Ohm-100kOhm, +/-0.5Ohm

IRC CHF Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The IRC CHF Series SMT Resistors include 11 components, representing 5 case styles in 3 resistance tolerances. The naming convention for these components is *sr_irc_CHF_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 1-16 (0603), 1-10 (0805), 1-8 (1206), 1-4 (1210), or 1-2 (2010)
tolerance code = F ($\pm 1\%$), J ($\pm 5\%$), or K (10%).

case dimensions (length × width) are:

1-16: .062 inches × .031 inches
1-10: .079 inches × .049 inches
1-8: .126 inches × .063 inches
1-4: .126 inches × .098 inches
1-2: .200 inches × .098 inches

The schematic design model for the IRC CHF Series SMT resistors is given by the Discrete-Value Resistance model. Depending on the tolerance value the statistics of these series is represented as Uniform or Bimodal Distribution Functions.

IRC CHF Series SMT Resistors

Component Name	Description
sr_irc_CHF_1-10_F_19960828	IRC CHF Series, 1-10 Case, F Tolerance, 531 Parts: 10Ohm-3.32MOhm, +/-1%
sr_irc_CHF_1-10_J_19960828	IRC CHF Series, 1-10 Case, J Tolerance, 169 Parts: 10Ohm-10MOhm, +/-5%
sr_irc_CHF_1-16_F_19960828	IRC CHF Series, 1-16 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_irc_CHF_1-16_J_19960828	IRC CHF Series, 1-16 Case, J Tolerance, 129 Parts: 10Ohm-2.2MOhm, +/-5%
sr_irc_CHF_1-2_F_19960828	IRC CHF Series, 1-2 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_irc_CHF_1-2_J_19960828	IRC CHF Series, 1-2 Case, J Tolerance, 169 Parts: 10Ohm-10MOhm, +/-5%
sr_irc_CHF_1-4_F_19960828	IRC CHF Series, 1-4 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_irc_CHF_1-4_J_19960828	IRC CHF Series, 1-4 Case, J Tolerance, 169 Parts: 10Ohm-10MOhm, +/-5%
sr_irc_CHF_1-8_F_19960828	IRC CHF Series, 1-8 Case, F Tolerance, 577 Parts: 10Ohm-10MOhm, +/-1%
sr_irc_CHF_1-8_J_19960828	IRC CHF Series, 1-8 Case, J Tolerance, 169 Parts: 10Ohm-10MOhm, +/-5%
sr_irc_CHF_1-8_K_19960828	IRC CHF Series, 1-8 Case, K Tolerance, 5 Parts: 11MOhm-22MOhm, +/-10%

IRC CR Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The IRC CR Series SMT Resistors include 24 components, representing 4 case styles in 6 resistance tolerances. The naming convention for these components is *sr_irc_CR_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 0503, 0805, 1005, or 1206
 tolerance code = B ($\pm 0.1\%$), D ($\pm 0.5\%$), L ($\pm 0.25\%$), F ($\pm 1\%$), G ($\pm 2\%$), or J ($\pm 5\%$).

case dimensions (length \times width) are:

0503: .049 inches \times .012 inches
 0805: .079 inches \times .049 inches
 1005: .098 inches \times .049 inches
 1206: .126 inches \times .063 inches

The schematic design model for the IRC CR Series SMT resistors is given by the Discrete-Value Resistance model. Depending on the tolerance value the statistics of these series is represented as Uniform or Bimodal Distribution Functions.

IRC CR Series SMT Resistors

Component Name	Description
sr_irc_CR_0503_B_19960828	IRC CR Series, 0503 Case, B Tolerance, 961 Parts: 10hm-100kOhm, +/-0.1%
sr_irc_CR_0503_D_19960828	IRC CR Series, 0503 Case, D Tolerance, 769 Parts: 10hm-10kOhm, +/-0.5%
sr_irc_CR_0503_F_19960828	IRC CR Series, 0503 Case, F Tolerance, 673 Parts: 10hm-10MOhm, +/-1%
sr_irc_CR_0503_G_19960828	IRC CR Series, 0503 Case, G Tolerance, 169 Parts: 10hm-10MOhm, +/-2%
sr_irc_CR_0503_J_19960828	IRC CR Series, 0503 Case, J Tolerance, 169 Parts: 10hm-10MOhm, +/-5%
sr_irc_CR_0503_L_19960828	IRC CR Series, 0503 Case, L Tolerance, 769 Parts: 10hm-10kOhm, +/-0.25%
sr_irc_CR_0805_B_19960828	IRC CR Series, 0805 Case, B Tolerance, 961 Parts: 10hm-100kOhm, +/-0.1%
sr_irc_CR_0805_D_19960828	IRC CR Series, 0805 Case, D Tolerance, 769 Parts: 10hm-10kOhm, +/-0.5%
sr_irc_CR_0805_F_19960828	IRC CR Series, 0805 Case, F Tolerance, 769 Parts: 10hm-100MOhm, +/-1%
sr_irc_CR_0805_G_19960828	IRC CR Series, 0805 Case, G Tolerance, 193 Parts: 10hm-100MOhm, +/-2%
sr_irc_CR_0805_J_19960828	IRC CR Series, 0805 Case, J Tolerance, 193 Parts: 10hm-100MOhm, +/-5%
sr_irc_CR_0805_L_19960828	IRC CR Series, 0805 Case, L Tolerance, 769 Parts: 10hm-10kOhm, +/-0.25%
sr_irc_CR_1005_B_19960828	IRC CR Series, 1005 Case, B Tolerance, 961 Parts: 10hm-100kOhm, +/-0.1%
sr_irc_CR_1005_D_19960828	IRC CR Series, 1005 Case, D Tolerance, 769 Parts: 10hm-10kOhm, +/-0.5%
sr_irc_CR_1005_F_19960828	IRC CR Series, 1005 Case, F Tolerance, 769 Parts: 10hm-100MOhm, +/-1%
sr_irc_CR_1005_G_19960828	IRC CR Series, 1005 Case, G Tolerance, 193 Parts: 10hm-100MOhm, +/-2%
sr_irc_CR_1005_J_19960828	IRC CR Series, 1005 Case, J Tolerance, 193 Parts: 10hm-100MOhm, +/-5%
sr_irc_CR_1005_L_19960828	IRC CR Series, 1005 Case, L Tolerance, 769 Parts: 10hm-10kOhm, +/-0.25%
sr_irc_CR_1206_B_19960828	IRC CR Series, 1206 Case, B Tolerance, 961 Parts: 10hm-100kOhm, +/-0.1%
sr_irc_CR_1206_D_19960828	IRC CR Series, 1206 Case, D Tolerance, 769 Parts: 10hm-10kOhm, +/-0.5%
sr_irc_CR_1206_F_19960828	IRC CR Series, 1206 Case, F Tolerance, 769 Parts: 10hm-100MOhm, +/-1%
sr_irc_CR_1206_G_19960828	IRC CR Series, 1206 Case, G Tolerance, 193 Parts: 10hm-100MOhm, +/-2%
sr_irc_CR_1206_J_19960828	IRC CR Series, 1206 Case, J Tolerance, 193 Parts: 10hm-100MOhm, +/-5%
sr_irc_CR_1206_L_19960828	IRC CR Series, 1206 Case, L Tolerance, 769 Parts: 10hm-10kOhm, +/-0.25%

Kamaya RGC Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The Kamaya RGC Series SMT Resistors include 8 components, representing 4 case styles in 2 resistance tolerances. The naming convention for these components is *sr_kya_RGC_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 1-16S (0402), 1-16 (0603), 1-10 (0805), or 1-8 (1206)
 tolerance code = D ($\pm 0.5\%$) or F ($\pm 1\%$).

case dimensions (length \times width) are:

1-16S: 1.0 mm \times 0.5 mm
 1-16: 1.6 mm \times 0.8 mm
 1-10: 2.0 mm \times 1.25 mm
 1-8: 3.1 mm \times 1.55 mm

The schematic design model for the Kamaya RGC Series SMT resistors is given by the

Discrete-Value Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

Kamaya RGC Series SMT Resistors

Component Name	Description
sr_kya_RGC_1-10_D_19960828	Kamaya RGC Series, 1-10 Case, D Tolerance, 385 Parts: 100Ohm-1MOhm, +/-0.5%
sr_kya_RGC_1-10_F_19960828	Kamaya RGC Series, 1-10 Case, F Tolerance, 385 Parts: 100Ohm-1MOhm, +/-1%
sr_kya_RGC_1-16S_D_19960828	Kamaya RGC Series, 1-16S Case, D Tolerance, 385 Parts: 100Ohm-1MOhm, +/-0.5%
sr_kya_RGC_1-16S_F_19960828	Kamaya RGC Series, 1-16S Case, F Tolerance, 385 Parts: 100Ohm-1MOhm, +/-1%
sr_kya_RGC_1-16_D_19960828	Kamaya RGC Series, 1-16 Case, D Tolerance, 385 Parts: 100Ohm-1MOhm, +/-0.5%
sr_kya_RGC_1-16_F_19960828	Kamaya RGC Series, 1-16 Case, F Tolerance, 385 Parts: 100Ohm-1MOhm, +/-1%
sr_kya_RGC_1-8_D_19960828	Kamaya RGC Series, 1-8 Case, D Tolerance, 385 Parts: 100Ohm-1MOhm, +/-0.5%
sr_kya_RGC_1-8_F_19960828	Kamaya RGC Series, 1-8 Case, F Tolerance, 385 Parts: 100Ohm-1MOhm, +/-1%

Kamaya RMC Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The Kamaya RMC Series SMT Resistors include 17 components, representing 6 case styles in 3 resistance tolerances. The naming convention for these components is *sr_kya_RMC_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 1-16S (0402), 1-16 (0603), 1-10 (0805), 1-8 (1206), 1-4 (1210),
or 1-2 (2010)
tolerance code = F ($\pm 1\%$), G ($\pm 2\%$), or J ($\pm 5\%$).

case dimensions (length \times width) are:

1-16S: 1.0 mm \times 0.5 mm
1-16: 1.6 mm \times 0.8 mm
1-10: 2.0 mm \times 1.25 mm
1-8: 3.1 mm \times 1.55 mm
1-4: 3.1 mm \times 2.55 mm
1-2: 5.0 mm \times 2.5 mm

The schematic design model for the Kamaya RMC Series SMT resistors is given by the Discrete-Value Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

Kamaya RMC Series SMT Resistors

Kamaya RMC Series SMT Resistors

Component Name	Description
sr_kya_RMC_1-10_F_19960828	Kamaya RMC Series, 1-10 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_kya_RMC_1-10_G_19960828	Kamaya RMC Series, 1-10 Case, G Tolerance, 121 Parts: 10Ohm-1MOhm, +/-2%
sr_kya_RMC_1-10_J_19960828	Kamaya RMC Series, 1-10 Case, J Tolerance, 169 Parts: 10Ohm-10MOhm, +/-5%
sr_kya_RMC_1-16S_G_19960828	Kamaya RMC Series, 1-16S Case, G Tolerance, 121 Parts: 10Ohm-1MOhm, +/-2%
sr_kya_RMC_1-16S_J_19960828	Kamaya RMC Series, 1-16S Case, J Tolerance, 137 Parts: 4.7Ohm-2.2MOhm, +/-5%
sr_kya_RMC_1-16_F_19960828	Kamaya RMC Series, 1-16 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_kya_RMC_1-16_G_19960828	Kamaya RMC Series, 1-16 Case, G Tolerance, 121 Parts: 10Ohm-1MOhm, +/-2%
sr_kya_RMC_1-16_J_19960828	Kamaya RMC Series, 1-16 Case, J Tolerance, 5 Parts: 2.2MOhm-3.3MOhm, +/-5%
sr_kya_RMC_1-2_F_19960828	Kamaya RMC Series, 1-2 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_kya_RMC_1-2_G_19960828	Kamaya RMC Series, 1-2 Case, G Tolerance, 121 Parts: 10Ohm-1MOhm, +/-2%
sr_kya_RMC_1-2_J_19960828	Kamaya RMC Series, 1-2 Case, J Tolerance, 145 Parts: 10Ohm-1MOhm, +/-5%
sr_kya_RMC_1-4_F_19960828	Kamaya RMC Series, 1-4 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_kya_RMC_1-4_G_19960828	Kamaya RMC Series, 1-4 Case, G Tolerance, 121 Parts: 10Ohm-1MOhm, +/-2%
sr_kya_RMC_1-4_J_19960828	Kamaya RMC Series, 1-4 Case, J Tolerance, 169 Parts: 10Ohm-10MOhm, +/-5%
sr_kya_RMC_1-8_F_19960828	Kamaya RMC Series, 1-8 Case, F Tolerance, 481 Parts: 10Ohm-1MOhm, +/-1%
sr_kya_RMC_1-8_G_19960828	Kamaya RMC Series, 1-8 Case, G Tolerance, 121 Parts: 10Ohm-1MOhm, +/-2%
sr_kya_RMC_1-8_J_19960828	Kamaya RMC Series, 1-8 Case, J Tolerance, 169 Parts: 10Ohm-10MOhm, +/-5%

Kamaya RNC Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The Kamaya RNC Series SMT Resistors include 8 components, representing 2 case styles in 4 resistance tolerances. The naming convention for these components is *sr_kya_RNC_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 1-16 (0603) or 1-8 (1206)

tolerance code = B ($\pm 0.1\%$), C ($\pm 0.25\%$), D ($\pm 0.5\%$), or F ($\pm 1\%$).

case dimensions (length × width) are:

1-16: 1.6 mm × 0.8 mm
 1-10: 3.1 mm × 1.55 mm

The schematic design model for the Kamaya RNC Series SMT resistors is given by the Discrete-Value Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

Kamaya RNC Series SMT Resistors

Component Name	Description
sr_kya_RNC_1-10_B_19960828	Kamaya RNC Series, 1-10 Case, B Tolerance, 289 Parts: 100Ohm-100kOhm, +/-0.1%
sr_kya_RNC_1-10_C_19960828	Kamaya RNC Series, 1-10 Case, C Tolerance, 385 Parts: 100Ohm-100kOhm, +/-0.25%
sr_kya_RNC_1-10_D_19960828	Kamaya RNC Series, 1-10 Case, D Tolerance, 385 Parts: 100Ohm-100kOhm, +/-0.5%
sr_kya_RNC_1-10_F_19960828	Kamaya RNC Series, 1-10 Case, F Tolerance, 385 Parts: 100Ohm-100kOhm, +/-1%
sr_kya_RNC_1-16_B_19960828	Kamaya RNC Series, 1-16 Case, B Tolerance, 289 Parts: 100Ohm-100kOhm, +/-0.1%
sr_kya_RNC_1-16_C_19960828	Kamaya RNC Series, 1-16 Case, C Tolerance, 385 Parts: 100Ohm-100kOhm, +/-0.25%
sr_kya_RNC_1-16_D_19960828	Kamaya RNC Series, 1-16 Case, D Tolerance, 385 Parts: 100Ohm-100kOhm, +/-0.5%
sr_kya_RNC_1-16_F_19960828	Kamaya RNC Series, 1-16 Case, F Tolerance, 385 Parts: 100Ohm-100kOhm, +/-1%

KDI/Triangle NMC Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The KDI/Triangle NMC Series SMT Resistors include 5 components, representing 5 case styles in 1 resistance tolerance. The naming convention for these components is *sr_kdi_NMC_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 2040, 2550, 5050, 50100, or 75150
 tolerance code = G ($\pm 2\%$).

case dimensions (length × width) are:

2040: .040 inches × .020 inches
 2550: .050 inches × .025 inches
 5050: .050 inches × .050 inches
 50100: .100 inches × .050 inches
 75150: .150 inches × .075 inches

The schematic design model for the KDI/Triangle NMC Series SMT resistors is given by the

Continuous Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

KDI/Triangle NMC Series SMT Resistors

Component Name	Description
sr_kdi_NMC_2040_G_19950814	KDI NMC Series, 2040 Case, G Tolerance, Range: 2.5Ohm-4250hm, +/-2%
sr_kdi_NMC_2550_G_19950814	KDI NMC Series, 2550 Case, G Tolerance, Range: 3.5Ohm-5000hm, +/-2%
sr_kdi_NMC_50100_G_19950814	KDI NMC Series, 50100 Case, G Tolerance, Range: 40hm-5000hm, +/-2%
sr_kdi_NMC_5050_G_19950814	KDI NMC Series, 5050 Case, G Tolerance, Range: 1.5Ohm-2000hm, +/-2%
sr_kdi_NMC_75150_G_19950814	KDI NMC Series, 75150 Case, G Tolerance, Range: 40hm-5000hm, +/-2%

KDI/Triangle NPC Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The KDI/Triangle NPC Series SMT Resistors include 5 components, representing 5 case styles in 1 resistance tolerance. The naming convention for these components is `sr_kdi_NPC_<case style>_<tolerance code>_<extraction date>`.

where:

case style = 2040, 2550, 5050, 50100, or 75150
tolerance code = G ($\pm 2\%$).

case dimensions (length \times width) are:

2040: .040 inches \times .020 inches
2550: .050 inches \times .025 inches
5050: .050 inches \times .050 inches
50100: .100 inches \times .050 inches
75150: .150 inches \times .075 inches

The schematic design model for the KDI/Triangle NPC Series SMT resistors is given by the Continuous Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

KDI/Triangle NPC Series SMT Resistors

Component Name	Description
sr_kdi_NPC_2040_G_19950814	KDI NPC Series, 2040 Case, G Tolerance, Range: 2.5Ohm-4250hm, +/-2%
sr_kdi_NPC_2550_G_19950814	KDI NPC Series, 2550 Case, G Tolerance, Range: 3.5Ohm-5000hm, +/-2%
sr_kdi_NPC_50100_G_19950814	KDI NPC Series, 50100 Case, G Tolerance, Range: 40hm-5000hm, +/-2%
sr_kdi_NPC_5050_G_19950814	KDI NPC Series, 5050 Case, G Tolerance, Range: 1.5Ohm-2000hm, +/-2%
sr_kdi_NPC_75150_G_19950814	KDI NPC Series, 75150 Case, G Tolerance, Range: 40hm-5000hm, +/-2%

State of the Art SCPX Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The State of the Art SCPX Series SMT Resistors include 36 components, representing 6 case styles in 6 resistance tolerances. The naming convention for these components is *sr_sta_SCPX_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 0402, 0404, 0504, 0705, 1005, or 1206

tolerance code = D ($\pm 0.5\%$), F ($\pm 1\%$), G ($\pm 2\%$), J ($\pm 5\%$), K ($\pm 10\%$), or M ($\pm 20\%$).

case dimensions (length \times width) are:

0402: .040 inches \times .020 inches

0404: .035 inches \times .035 inches

0504: .050 inches \times .040 inches

0705: .075 inches \times .050 inches

1005: .100 inches \times .050 inches

1206: .125 inches \times .065 inches

The schematic design model for the State of the Art SCPX Series SMT resistors is given by the Discrete-Value Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

State of the Art SCPX Series SMT Resistors

Component Name	Description
sr_sta_SCPX_0402_D_19950814	STA SCPX Series, 0402 Case, D Tolerance, 577 Parts: 10Ohm-10MOhm, +/-0.5%
sr_sta_SCPX_0402_F_19950814	STA SCPX Series, 0402 Case, F Tolerance, 673 Parts: 10hm-10MOhm, +/-1%
sr_sta_SCPX_0402_G_19950814	STA SCPX Series, 0402 Case, G Tolerance, 169 Parts: 10hm-10MOhm, +/-2%
sr_sta_SCPX_0402_J_19950814	STA SCPX Series, 0402 Case, J Tolerance, 169 Parts: 10hm-10MOhm, +/-5%
sr_sta_SCPX_0402_K_19950814	STA SCPX Series, 0402 Case, K Tolerance, 85 Parts: 10hm-10MOhm, +/-10%
sr_sta_SCPX_0402_M_19950814	STA SCPX Series, 0402 Case, M Tolerance, 85 Parts: 10hm-10MOhm, +/-20%
sr_sta_SCPX_0404_D_19950814	STA SCPX Series, 0404 Case, D Tolerance, 577 Parts: 10Ohm-10MOhm, +/-0.5%
sr_sta_SCPX_0404_F_19950814	STA SCPX Series, 0404 Case, F Tolerance, 673 Parts: 10hm-10MOhm, +/-1%
sr_sta_SCPX_0404_G_19950814	STA SCPX Series, 0404 Case, G Tolerance, 169 Parts: 10hm-10MOhm, +/-2%
sr_sta_SCPX_0404_J_19950814	STA SCPX Series, 0404 Case, J Tolerance, 169 Parts: 10hm-10MOhm, +/-5%
sr_sta_SCPX_0404_K_19950814	STA SCPX Series, 0404 Case, K Tolerance, 85 Parts: 10hm-10MOhm, +/-10%

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sr_sta_SCPX_0404_M_19950814	STA SCPX Series, 0404 Case, M Tolerance, 85 Parts: 10hm-10MOhm, +/-20%
sr_sta_SCPX_0504_D_19950814	STA SCPX Series, 0504 Case, D Tolerance, 577 Parts: 10Ohm-10MOhm, +/-0.5%
sr_sta_SCPX_0504_F_19950814	STA SCPX Series, 0504 Case, F Tolerance, 673 Parts: 10hm-10MOhm, +/-1%
sr_sta_SCPX_0504_G_19950814	STA SCPX Series, 0504 Case, G Tolerance, 169 Parts: 10hm-10MOhm, +/-2%
sr_sta_SCPX_0504_J_19950814	STA SCPX Series, 0504 Case, J Tolerance, 169 Parts: 10hm-10MOhm, +/-5%
sr_sta_SCPX_0504_K_19950814	STA SCPX Series, 0504 Case, K Tolerance, 85 Parts: 10hm-10MOhm, +/-10%
sr_sta_SCPX_0504_M_19950814	STA SCPX Series, 0504 Case, M Tolerance, 85 Parts: 10hm-10MOhm, +/-20%
sr_sta_SCPX_0705_D_19950814	STA SCPX Series, 0705 Case, D Tolerance, 577 Parts: 10Ohm-10MOhm, +/-0.5%
sr_sta_SCPX_0705_F_19950814	STA SCPX Series, 0705 Case, F Tolerance, 673 Parts: 10hm-10MOhm, +/-1%
sr_sta_SCPX_0705_G_19950814	STA SCPX Series, 0705 Case, G Tolerance, 169 Parts: 10hm-10MOhm, +/-2%
sr_sta_SCPX_0705_J_19950814	STA SCPX Series, 0705 Case, J Tolerance, 169 Parts: 10hm-10MOhm, +/-5%
sr_sta_SCPX_0705_K_19950814	STA SCPX Series, 0705 Case, K Tolerance, 85 Parts: 10hm-10MOhm, +/-10%
sr_sta_SCPX_0705_M_19950814	STA SCPX Series, 0705 Case, M Tolerance, 85 Parts: 10hm-10MOhm, +/-20%
sr_sta_SCPX_1005_D_19950814	STA SCPX Series, 1005 Case, D Tolerance, 577 Parts: 10Ohm-10MOhm, +/-0.5%
sr_sta_SCPX_1005_F_19950814	STA SCPX Series, 1005 Case, F Tolerance, 673 Parts: 10hm-10MOhm, +/-1%
sr_sta_SCPX_1005_G_19950814	STA SCPX Series, 1005 Case, G Tolerance, 169 Parts: 10hm-10MOhm, +/-2%
sr_sta_SCPX_1005_J_19950814	STA SCPX Series, 1005 Case, J Tolerance, 169 Parts: 10hm-10MOhm, +/-5%
sr_sta_SCPX_1005_K_19950814	STA SCPX Series, 1005 Case, K Tolerance, 85 Parts: 10hm-10MOhm, +/-10%
sr_sta_SCPX_1005_M_19950814	STA SCPX Series, 1005 Case, M Tolerance, 85 Parts: 10hm-10MOhm, +/-20%
sr_sta_SCPX_1206_D_19950814	STA SCPX Series, 1206 Case, D Tolerance, 577 Parts: 10Ohm-10MOhm, +/-0.5%
sr_sta_SCPX_1206_F_19950814	STA SCPX Series, 1206 Case, F Tolerance, 673 Parts: 10hm-10MOhm, +/-1%
sr_sta_SCPX_1206_G_19950814	STA SCPX Series, 1206 Case, G Tolerance, 169 Parts: 10hm-10MOhm, +/-2%
sr_sta_SCPX_1206_J_19950814	STA SCPX Series, 1206 Case, J Tolerance, 169 Parts: 10hm-10MOhm, +/-5%
sr_sta_SCPX_1206_K_19950814	STA SCPX Series, 1206 Case, K Tolerance, 85 Parts: 10hm-10MOhm, +/-10%
sr_sta_SCPX_1206_M_19950814	STA SCPX Series, 1206 Case, M Tolerance, 85 Parts: 10hm-10MOhm, +/-20%

TFT RR Series SMT Resistors

For modeling specifications, see [Schematic Design](#).

The TFT RR Series SMT Resistors include 13 components, representing 3 case styles in 2 resistance tolerances. The naming convention for these components is *sr_tft_RR_<case style>_<tolerance code>_<extraction date>*.

where:

case style = 0510 (0402), 0816 (0603), or 1220 (0805)
tolerance code = B ($\pm 0.1\%$) or D ($\pm 0.5\%$).

case dimensions (length \times width) are:

0510: 1.0 mm \times 0.5 mm
0816: 1.6 mm \times 0.8 mm
1220: 2.0 mm \times 1.25 mm

The schematic design model for the TFT RR Series SMT resistors is given by the Discrete-Value Resistance model. The statistics of these series is represented as a Uniform Distribution Function.

TFT RR Series SMT Resistors

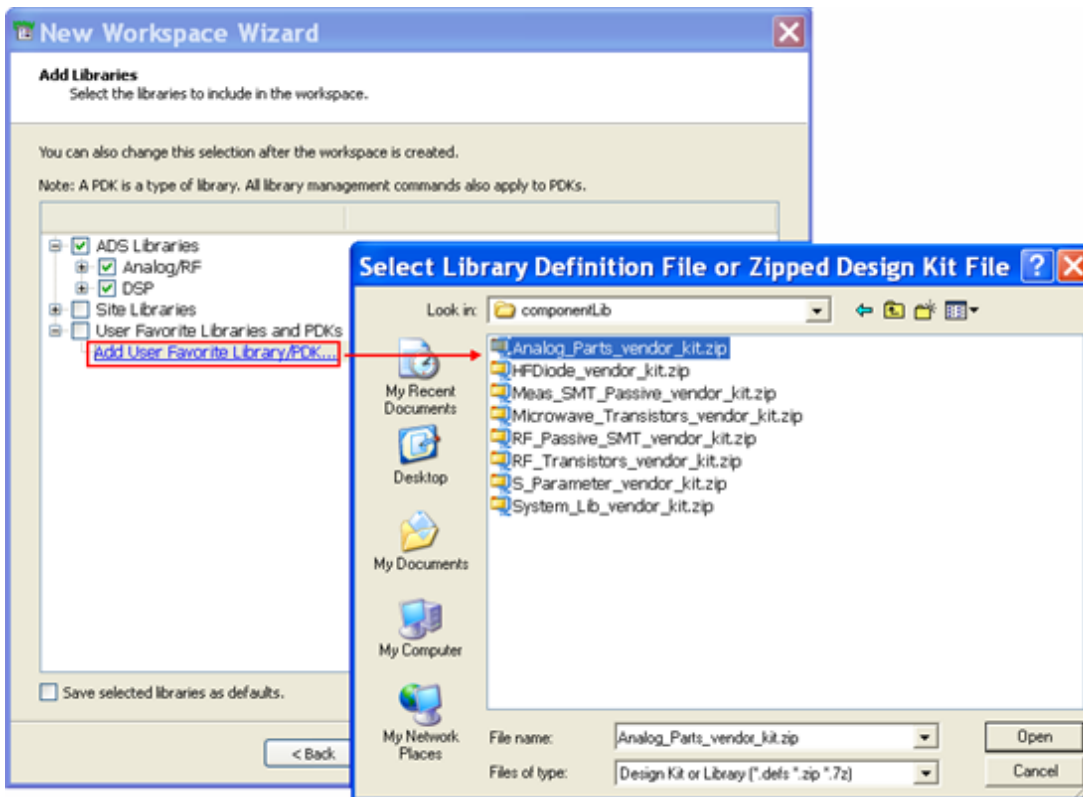
Component Name	Description
sr_tft_RR_0510_D_19960828	Thin Film Technology RR Series, 0510 Case, D Tolerance, 97 Parts: 100Ohm-100kOhm, +/-0.5%
sr_tft_RR_0816_B_19960828	Thin Film Technology RR Series, 0816 Case, B Tolerance, 286 Parts: 100Ohm-33kOhm, +/-0.1%
sr_tft_RR_0816_D_19960828	Thin Film Technology RR Series, 0816 Case, D Tolerance, 400 Parts: 100Ohm-330kOhm, +/-0.5%
sr_tft_RR_1220_B_19960828	Thin Film Technology RR Series, 1220 Case, B Tolerance, 343 Parts: 100Ohm-100kOhm, +/-0.1%
sr_tft_RR_1220_D_19960828	Thin Film Technology RR Series, 1220 Case, D Tolerance, 571 Parts: 100Ohm-1MOhm, +/-0.5%

Procedure to use Vendor Component Library

This section describes the steps to add a Vendor component library to a new or an existing workspace.

Follow the steps below to add a Vendor component library to a new workspace:

1. Start ADS and create a new workspace.
2. In the **New Workspace Wizard** click **Add User Favorite Library/PDK** and select the zipped component library in your ADS install directory ($\$HPEESOF_DIR/oalibs/componentLib/$). For e.g., to install the Analog_Parts vendor library to a workspace, select *Analog_Parts_vendor_kit* in your install directory ($\$HPEESOF_DIR/oalibs/componentLib/Analog_Parts_vendor_kit$).



3. Select the directory where you want to unzip the library.
4. After the file is unzipped, enter the Design Kit name and click **OK**.
5. Open a Schematic view and choose **Insert > Component > Component Library**, to view the Vendor Libraries in the Component Library browser. The library will appear below ADS-Analog/RF Libraries if you unzip it in your ADS install directory ($\$HPEESOF_DIR/oalibs/componentLib/$), else it appears below Read-Only Libraries.

Follow the steps below to add a Vendor component library to an existing workspace:

1. Start ADS and open a workspace.
2. Choose **DesignKits > Unzip Design Kit** from the ADS main window.

3. Select the zipped component library in your ADS install directory (*\$HPEESOF_DIR/oalibs/componentLib/*).
4. Select the directory where you want to unzip the library.
5. After the file is unzipped, enter the Design Kit name and click **OK**.
6. Click **Yes** in the **Add Design Kit** dialog box, to add the library to the current workspace.
7. Open a Schematic view and choose **Insert > Component > Component Library**, to view the Vendor Libraries in the Component Library browser.
The library will appear below ADS-Analog/RF Libraries if you unzip it in your ADS install directory (*\$HPEESOF_DIR/oalibs/componentLib/*), else it appears below Read-Only Libraries.