



Siemens Matsushita Components

# SMT

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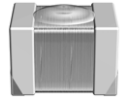
# Inductors

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SIMID 0805 **SMD**  
B82498-B

Data Book Supplement

**Size 0805/2012 (inch/mm)**  
**Rated inductance 2,7 to 4700 nH**  
**Rated current 0,07 to 1,0 A**



#### **Construction**

- Cubic coil with ceramic or ferrite core
- Plastic-sealed winding
- Winding ends welded to contact areas
- Temperature index of wire enamel: 180 °C

#### **Features**

- Same measuring frequency for  $L$  and  $Q$
- High  $Q$  factor
- High resonance frequency
- Suitable for reflow (IR and vapor phase) and wave soldering

#### **Applications**

- Antenna amplifiers
- Mobile phones
- Video cameras

#### **Terminals**

- Solderable metallized contact areas of Ag/Pd/Pt

#### **Marking**

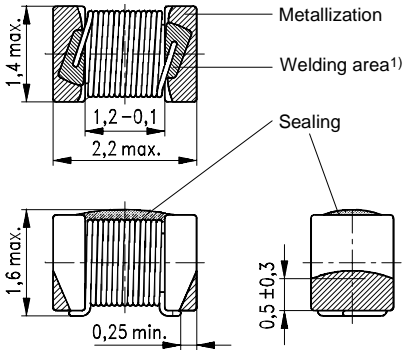
Minimum marking on reel:  
Manufacturer, part number, ordering code,  
 $L$  value and tolerance of  $L$  value,  
quantity, date of packing

#### **Delivery mode**

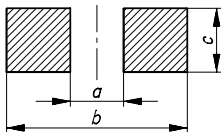
8-mm blister tape wound on 180-mm or 330-mm  $\varnothing$  reel  
For details on taping, packing and packing units refer to data book EMC Components, page 433.

**Dimensional drawing**

Size 0805/2012 (inch/mm)  
approx. weight 8,5 mg



**PCB layout recommendation**



SSB1188-A

**Dimensions (mm)**

<i>a</i>	<i>b</i>	<i>c</i>
1,0 ... 1,2	3,0 ... 3,8	0,9 ... 1,3

1) This area (30 % of seating area) shall not be used to assess solderability.

**Characteristics and ordering codes**

For further technical data see page 6.

$L_R$ nH	Tolerance <sup>1)</sup>	$Q_{min}$	$f_L; f_Q$ MHz	$I_R$ mA	$R_{max}$ $\Omega$	$f_{res, min}$ MHz	Ordering code <sup>2)</sup>
Core material: ceramics							
2,7	$\pm 10\%$	20	250	1000	0,03	6000	B82498-B3279-M
5,6	$\hat{=} K$	25	250	900	0,04	6000	B82498-B3569-M
6,8	$\pm 20\%$	30	250	800	0,05	5500	B82498-B3689-K
8,2	$\hat{=} M$	35	250	700	0,06	5000	B82498-B3829-M
10	$\pm 5\%$	40	250	700	0,06	4500	B82498-B3100-+
12	$\hat{=} J$	40	250	700	0,06	4000	B82498-B3120-+
15	$\pm 10\%$	40	250	670	0,07	3500	B82498-B3150-+
18	$\hat{=} K$	45	250	670	0,07	3300	B82498-B3180-+
22		45	250	600	0,09	2600	B82498-B3220-+
27		50	250	600	0,09	2500	B82498-B3270-+
33		45	250	520	0,12	2150	B82498-B3330-+
39		50	250	560	0,10	2050	B82498-B3390-+
47		45	200	500	0,13	1900	B82498-B3470-+
56	$\pm 2\%$	45	200	480	0,14	1700	B82498-B3560-+
68	$\hat{=} G$	45	200	410	0,19	1550	B82498-B3680-+
82	$\pm 5\%$	40	150	390	0,21	1430	B82498-B3820-+
100	$\hat{=} J$	40	150	350	0,26	1310	B82498-B3101-+
120	$\pm 10\%$	40	150	270	0,44	1210	B82498-B3121-+
150	$\hat{=} K$	35	100	270	0,44	1120	B82498-B3151-+
180		35	100	260	0,47	1030	B82498-B3181-+
220		35	100	240	0,55	950	B82498-B3221-+
270		35	100	180	1,0	870	B82498-B3271-+
330		35	100	180	1,0	800	B82498-B3331-+
390		35	100	130	1,9	730	B82498-B3391-+
470		35	100	115	2,4	660	B82498-B3471-+
560		35	100	100	3,2	600	B82498-B3561-+

1) Closer tolerances upon request.

2) Replace the + by the code letter for the required inductance tolerance.

The listed ordering codes are for reel size  $\varnothing$  180 mm; for reel size  $\varnothing$  330 mm the last digit of the ordering code has to be an "8".  
Example: B82498-B3279-M8

**Characteristics and ordering codes**

For further technical data see page 6.

$L_R$ nH	Tolerance <sup>1)</sup>	$Q_{min}$	$f_L; f_Q$ MHz	$I_R$ mA	$R_{max}$ $\Omega$	$f_{res, min}$ MHz	Ordering code <sup>2)</sup>
Core material: ferrite							
680	$\pm 2\%$	20	25,2	250	0,50	450	B82498-B1681-+
820	$\hat{=} G$	20	25,2	240	0,55	400	B82498-B1821-+
1000	$\pm 5\%$	20	7,96	250	0,50	350	B82498-B1102-+
1200	$\hat{=} J$	20	7,96	220	0,65	300	B82498-B1122-+
1500	$\pm 10\%$	20	7,96	200	0,75	250	B82498-B1152-+
1800	$\hat{=} K$	20	7,96	190	0,85	250	B82498-B1182-+
2200		20	7,96	130	1,7	200	B82498-B1222-+
2700		20	7,96	120	2,0	200	B82498-B1272-+
3300		20	7,96	100	3,3	200	B82498-B1332-+
3900		20	7,96	95	3,6	150	B82498-B1392-+
4700		20	7,96	90	3,8	150	B82498-B1472-+

1) Closer tolerances upon request.

2) Replace the + by the code letter for the required inductance tolerance.

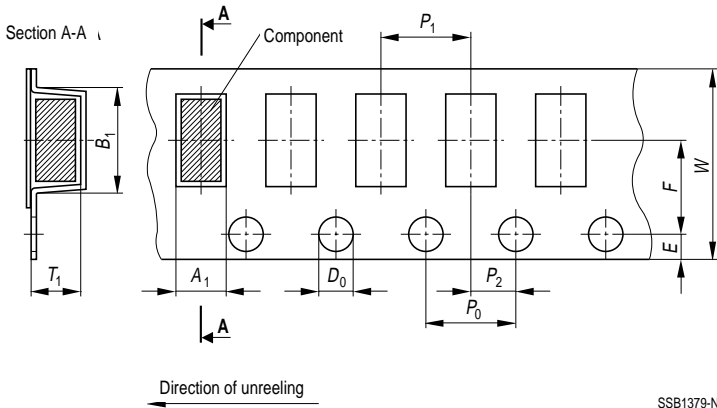
The listed ordering codes are for reel size  $\varnothing$  180 mm; for reel size  $\varnothing$  330 mm the last digit of the ordering code has to be an "8".

Example: B82498-B3279-M8

**General technical data**

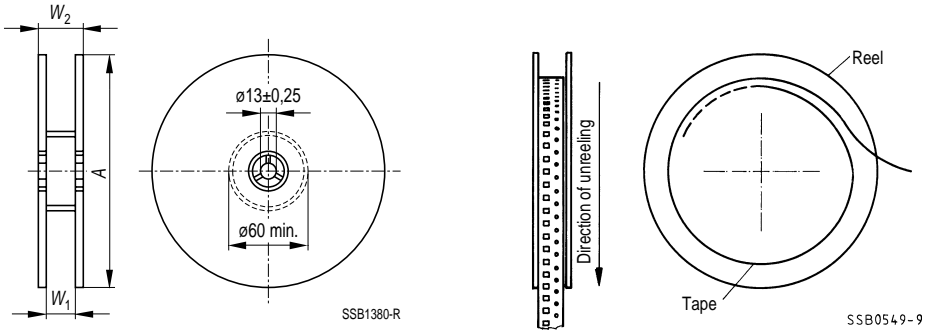
Rated inductance $L_R$	Measured at frequency $f_L$ , with impedance analyzer HP 4286 A and test fixture HP 16193 A
Q factor $Q_{\min}$	Measured at frequency $f_Q$ , with impedance analyzer HP 4286 A and test fixture HP 16193 A
Rated current $I_R$	Maximum permissible dc with an inductance decrease of $\Delta L/L_0 \leq 10\%$ and/or a temperature increase of $\leq 20\text{ K}$ referred to 85 °C ambient temperature
Self-resonance frequency $f_{\text{res, min}}$	Measured with network analyzer HP 8753 and 1 mm pad distance of CECC test fixture
DC resistance $R_{\max}$	Measured at 20 °C ambient temperature, measuring current $< I_R$
Climatic category	In accordance with IEC 68-1 55/125/56 (– 55 °C/+ 125 °C/56 days damp heat test)
Permissible soldering procedures	Wave and reflow soldering (IR and vapor phase) temperature and time curves in accordance with CECC 00 802
Solderability 215 ± 3 °C, 3 ± 0,3 s	Wetting of soldering area: ≥ 95 %
Resistance to soldering heat 260 ± 5 °C, 10 ± 1 s	$ \Delta L/L  \leq 5\%$ $ \Delta Q/Q  \leq 20\%$
Permissible PCB bending	2 mm (100 mm long standard PCB)

**Taping**



Dimension	Type
mm	B82498-B
$W$	$8 \pm 0,3$
$D_0$	$1,5 + 0,1/-0$
$P_0$	$4 \pm 0,1$
$P_1$	$4 \pm 0,1$
$P_2$	$2 \pm 0,05$
$E$	$1,75 \pm 0,1$
$F$	$3,5 \pm 0,05$
$B_1$	$2,35 \pm 0,1$
$T_1$	$1,5 \pm 0,1$
$A_1$	$1,45 \pm 0,1$

Packing



Type	Reel dimensions (mm)			Packing units per reel (pcs)
	A	W <sub>1</sub>	W <sub>2</sub>	
B82498-B	180 +0/-4	8,4 +1,5/-0	14,4 max.	3000
	330 +0/-2	8,4 +1,5/-0	14,4 max.	10000

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