



POWER METAL STRIP[®] RESISTOR

WSLT2010...18



High-Temperature (+ 275° C), 2010 Size, 1 W, Surface-Mount Power Metal Strip[®] Resistor

FEATURES

- Industry's first high-temperature 2010 size, 1 W Power Metal Strip[®] current-sensing resistor
- Operating temperature range: -65 °C to +275 °C
- Enables use in high-temperature environments with less derating required: 0.61 W rated power at 150 °C
- Very low resistance values: 1 mΩ to 500 mΩ
- Very low inductance: < 5 nH
- Low thermal EMF (< 3 μV/°C)
- Suitable for use in harsh environments

APPLICATIONS

- Automotive: engine and transmission controls, audio electronics, climate controls, anti-lock brakes, etc.
- Industrial: oil and gas well drilling (down hole test/measurement equipment)

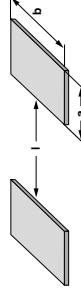
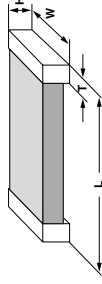
Power Metal Strip® Resistors High Temperature (275 °C), High Power (1 W), Low Value (down to 0.001 Ω), Surface Mount

FEATURES

- Ideal for all types of current sensing, voltage division and pulse applications including switching and linear power supplies, instruments and power amplifiers
- Proprietary processing technique produces extremely low resistance values
- RoHS COMPLIANT
- Specialty selected and stabilized materials allow for high temperature derating (to +275 °C) and high power ratings (2 x standard WSL rating)
- All welded construction
- Solid metal Nickel-Chrome alloy resistive element with low TCR (< 20 ppm/°C)
- Very low inductance (< 5 nH)
- Excellent frequency response to 50 MHz
- Low thermal EMF (< 3 μV/°C)

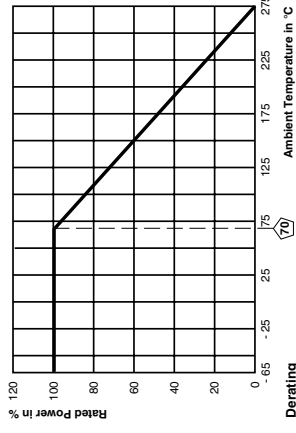


DIMENSIONS



MODEL	DIMENSIONS in inches [millimeters]			
	L	W	H	T
WSLT2010...18	0.200 ± 0.010 [5.08 ± 0.254]	0.100 ± 0.010 [2.54 ± 0.254]	0.025 ± 0.010 [0.635 ± 0.254]	0.020 ± 0.010 [0.508 ± 0.254]

MODEL	SOLDER PAD DIMENSIONS in inches [millimeters]		
	a	b	l
WSLT2010...18	0.055 [1.40]	0.120 [3.05]	0.130 [3.30]



TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal Shock	-55 °C to +150 °C, 1000 cycles, 15 min at each extreme	± 0.5 % ΔR
Short Time Overload	5 x rated power for 5 s	± 0.5 % ΔR
Low Temperature Operation	-65 °C for 48 min	± 0.5 % ΔR
High Temperature Exposure	1000 h at +275 °C	± 2.0 % ΔR
Bias Humidity	+85 °C, 85 % RH, 10 % Bias, 1000 h	± 0.5 % ΔR
Mechanical Shock	100 g's for 6 ms, 5 pulses	± 0.5 % ΔR
Vibration	Frequency varied 10 to 2000 Hz in 1 min, 3 directions, 12 h	± 0.5 % ΔR
Load Life at 70 °C	1000 h, 1.5 h "ON", 0.5 h "OFF"	± 1.0 % ΔR
Load Life at 150 °C	1000 h, 1.5 h "ON", 0.5 h "OFF"	± 1.0 % ΔR
Resistance to Solder Heat	260 °C Solder, 10 to 12 s dwell, 25 mm/s emergence	± 0.5 % ΔR
Moisture Resistance	MIL-STD-202, Method 106, 0 % power, 7b not required	± 1.0 % ΔR

Revision 06-Oct-08

PACKAGING			
MODEL	TAPE WIDTH	DIAMETER	PIECES/REEL
WSLT2010...18	12 mm/Embossed Plastic	178 mm/7"	4000

Note
• Embossed Carrier Tape per EIA-481-2

STANDARD ELECTRICAL SPECIFICATIONS		
GLOBAL MODEL	POWER RATING P_{70}^c W	RESISTANCE RANGE Ω
WSLT2010...18	1.0	0.01 to 0.50
		± 0.5 %
		± 1.0 %
		0.001 to 0.50
		WEIGHT (typical) g/1000 pieces
		38.9

TECHNICAL SPECIFICATIONS	
PARAMETER	UNIT
Temperature Coefficient	ppm/°C
Inductance	nH
Operating Temperature Range	°C
Maximum Continuous Current	A

GLOBAL PART NUMBER INFORMATION											
NEW GLOBAL PART NUMBERING: WSLT2010R0100FEA18											
W	S	L	T	2	0	1	0	R	0	1	0
GLOBAL MODEL			RESISTANCE VALUE			TOLERANCE CODE			PACKAGING CODE		
WSLT2010			L = mΩ R = Decimal 4L000 = 0.004 Ω R0100 = 0.01 Ω * uses "L" for resistance values < 0.01 Ω			D = ± 0.5 % F = ± 1.0 %			EA = Lead (Pb)-free, taped/reel EK = Lead (Pb)-free, bulk		
						SPECIAL			18 = "High Power" option		

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