

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



KEY BENEFITS

- 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)

RESOURCES

- Datasheet: WSLT2010...18 - <http://www.vishay.com/doc?30138>
- For technical questions contact ww2bresistors@vishay.com

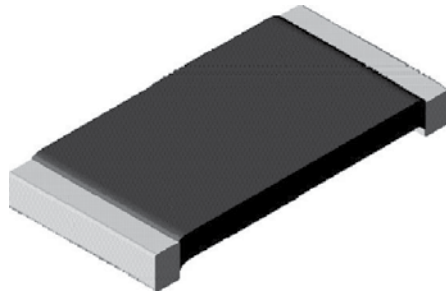


POWER METAL STRIP® RESISTOR

WSLT2010...18



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



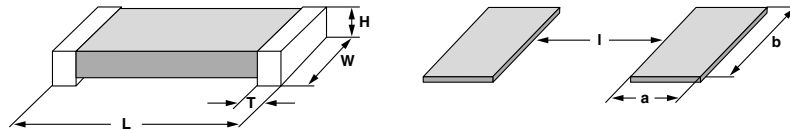
FEATURES

- 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
- Specially 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)
- Compliant to RoHS directive 2002/95/EC



RoHS COMPLIANT
GREEN (5-2008)**

DIMENSIONS in inches (millimeters)



MODEL	DIMENSIONS				SOLDER PAD DIMENSIONS		
	L	W	H	T	a	b	l
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)	0.055 (1.40)	0.120 (3.05)	0.130 (3.30)

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	SIZE	POWER RATING $P_{70\text{ }^\circ\text{C}}$ W	TOLERANCE %	RESISTANCE VALUE RANGE Ω	WEIGHT (typical) g/1000 pieces
WSLT2010...18	2010	1.0	± 0.5 and ± 1.0	0.01 to 0.50	38.9

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature coefficient	ppm/°C	± 75
Inductance	nH	< 5
Operating temperature range	°C	- 65 to + 275
Maximum continuous current	A	$(P/R)^{1/2}$

GLOBAL PART NUMBER INFORMATION

Global Part Numbering: WSLT2010R0100FEA18

W S L T 2 0 1 0 R 0 1 0 0 F E A 1 8

GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING CODE	SPECIAL
WSLT2010	R = Decimal R0100 = 0.01 Ω	D = ± 0.5 % F = ± 1.0 %	EA = Lead (Pb)-free, tape/reel EK = Lead (Pb)-free, bulk	18 = "High power" option

Revision 02-Aug-10

Resistors - First High-Temperature 2010 Size