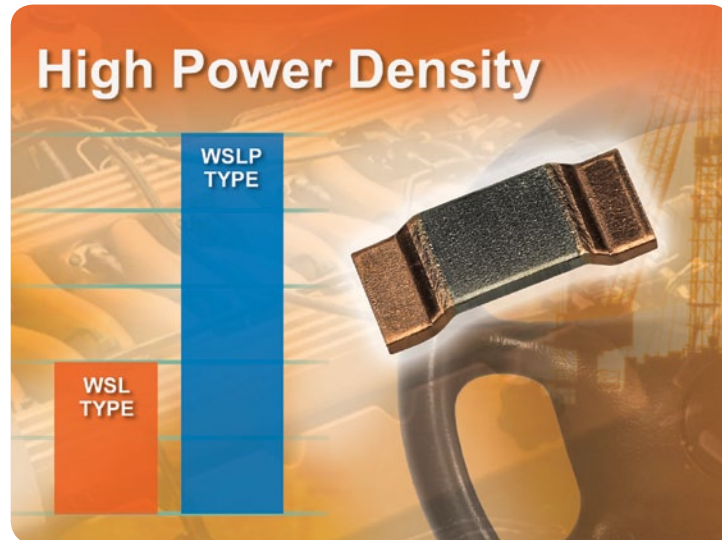


POWER METAL STRIP® RESISTORS

WSLP3921 and WSLP5931



High Power, 5 W to 10 W, Surface-Mount Power Metal Strip® Resistors



KEY BENEFITS

- The WSLP3921 resistors have very high power rating of 5 W and 9 W
- The WSLP5931 resistors have very high power rating of 7 W and 10 W
- Very low resistance values (down to 0.0003 Ω)
- AEC-Q200 qualified*

APPLICATIONS

Automotive:

- Electronic controls (engine controls, climate controls, anti-lock brakes, etc.)
- Brushless DC motor controls (electric power steering, electric – water pump, oil pump, air conditioning, etc.)
- Electric and hybrid controls (battery management)

Industrial:

- Oil/gas well drilling (down hole test, measurement equipment)
- Air conditioning/heat pump (inverter control)

Consumer:

- Air conditioning/heat pump (inverter control)
- White goods (inverter control)

RESOURCES

- Datasheet: WSLP3921, WSLP5931 - <http://www.vishay.com/doc?30176>
- For technical questions contact ww2bresistors@vishay.com

*Flame retardance test may not be applicable to some resistor technologies

One of the World's Largest Manufacturers of
Discrete Semiconductors and Passive Components

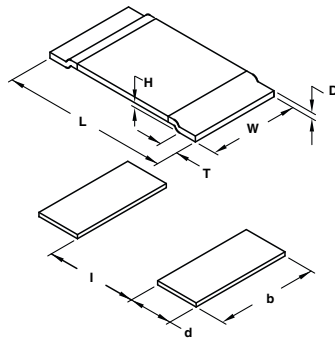
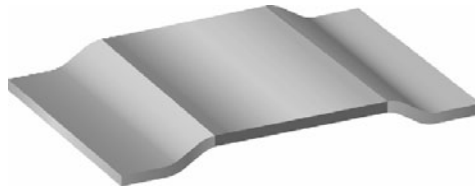


Resistors - Extremely Low Resistance

POWER METAL STRIP® RESISTORS

WSLP3921 and WSLP5931

High Power, 5 W to 10 W, Surface-Mount Power Metal Strip® Resistors



DIMENSIONS

FEATURES

- Ideal for all types of current sensing, voltage division and pulse applications including switching and linear power supplies, instruments, power amplifiers
- Proprietary processing technique produces extremely low resistance values, down to 0.0003 Ω
- Specially selected and stabilized materials allow for high power rating (to 10 W)
- All welded construction
- Solid metal iron-chrome or manganese-copper alloy resistive element with low TCR (< 20 ppm/°C)
- Very low inductance 0.5 nH to 5 nH
- Excellent frequency response to 50 MHz
- Low thermal EMF (< 3 μV/°C)
- AEC-Q200 qualified available ⁽¹⁾
- Compliant to RoHS Directive 2002/95/EC



Note

⁽¹⁾ Flame retardance test may not be applicable to some resistor technologies.

MODEL	DIMENSIONS in inches (millimeters)				SOLDER PAD DIMENSIONS in inches (millimeters)		
	L	W	H	T	d	b	I
WSLP3921	0.394 ± 0.010 (10.0 ± 0.254)	0.205 ± 0.010 (5.20 ± 0.254)	0.020 (0.5)	0.080 ± 0.010 (2.00 ± 0.254)	0.106 ± 0.010 (2.70 ± 0.254)	0.244 ± 0.010 (6.20 ± 0.254)	0.220 ± 0.005 (5.60 ± 0.13)
WSLP5931	0.591 ± 0.010 (15.0 ± 0.254)	0.305 ± 0.010 (7.75 ± 0.254)	0.020 (0.5)	0.157 ± 0.010 (4.00 ± 0.254)	0.205 ± 0.010 (5.20 ± 0.254)	0.344 ± 0.010 (8.75 ± 0.254)	0.220 ± 0.005 (5.60 ± 0.13)

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	SIZE	POWER RATING $P_{70^\circ\text{C}}$ W	TOLERANCE %	RESISTANCE VALUE RANGE Ω	RESISTANCE VALUES CURRENTLY AVAILABLE ⁽²⁾ Ω	WEIGHT (typical) g/1000 pieces
WSLP3921	3921	5.0	1.0, 5.0	2m to 4m	2m, 3m, 4m	281
WSLP3921	3921	9.0	1.0, 5.0	0.5m to 1m	0.5m, 1m	281
WSLP5931	5931	7.0	1.0, 5.0	1m to 3m	1m, 2m, 3m	398
WSLP5931	5931	10.0	1.0, 5.0	0.3m to 0.5m	0.3m, 0.5m	398

Note

⁽²⁾ Other values may be available, contact factory.

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature coefficient	ppm/°C	± 175 for 0.3 mΩ and 0.5 mΩ, ± 75 for 1 mΩ to 4 mΩ
Operating temperature range	°C	- 65 to + 170
Maximum continuous current	A	$(P/R)^{1/2}$

GLOBAL PART NUMBER INFORMATION

Global Part Numbering: WSLP39212L000FEA

W S L P 3 9 2 1 2 L 0 0 0 F E A

GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING CODE	SPECIAL
WSLP3921 WSLP5931	L = mΩ 2L000 = 0.002 Ω	F = ± 1.0 % J = ± 5.0 %	EA = Lead (Pb)-free, tape/reel EK = Lead (Pb)-free, bulk	Reserved for future specials

Revision 18-Nov-10

Resistors - Extremely Low Resistance