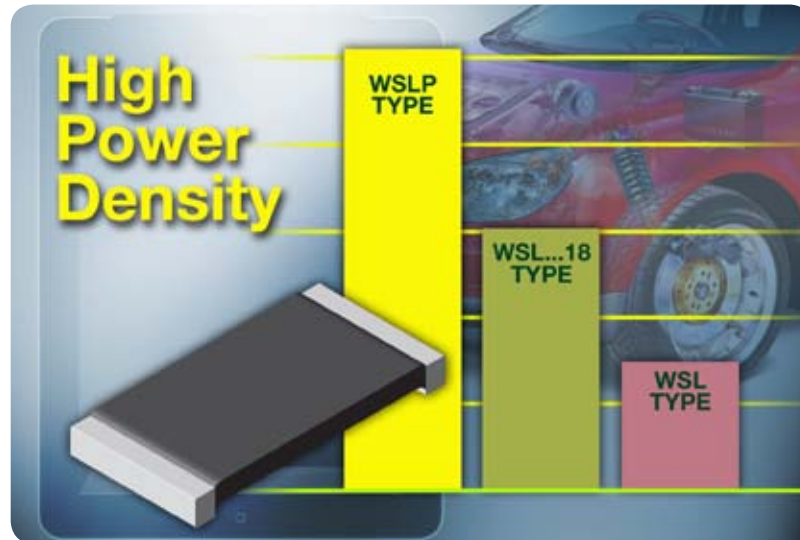


Power Metal Strip® Resistors, Very High Power (2 W) Low Value (Down to 0.001 Ω), Surface-Mount



KEY BENEFITS

- 2 W power capability in 2010 package size
- Very low resistance values (0.001 Ω to 0.01 Ω)

APPLICATIONS

Automotive:

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

Computer:

- DC/DC converters, VRMs for servers
- Li-Ion battery management and safety

Industrial:

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

Consumer:

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

RESOURCES

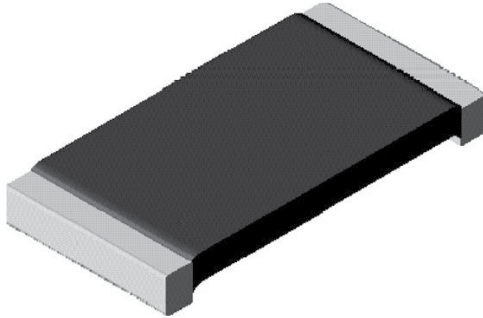
- Datasheet: WSLP - <http://www.vishay.com/doc?30122>
- For technical questions contact vw2bresistors@vishay.com



POWER METAL STRIP® RESISTORS

WSLP2010

Power Metal Strip® Resistors, Very High Power (to 3 W), Low Value (Down to 0.0005 Ω), Surface-Mount



FEATURES

- Very high power-to-foot print size ratio (3 W in 2512, 2 W in 2010, 1 W in 1206, 0.5 W in 0805, and 0.4 W in 0603 package)
- Ideal for all types of current sensing and pulse applications including switching and linear power supplies, instruments, power amplifiers and shunts
- Proprietary processing technique produces extremely low resistance values (down to 0.0005 Ω)
- All welded construction
- Solid metal nickel-chrome or manganese-cop 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⁾
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Note

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

STANDARD ELECTRICAL SPECIFICATIONS					
GLOBAL MODEL	SIZE	POWER RATING $P_{70^{\circ}\text{C}}$ W	RESISTANCE VALUE RANGE Ω		WEIGHT (typical) g/1000 pieces
			Tol. ± 0.5 %	Tol. ± 1.0 %	
WSLP0603	0603	0.4	0.015 to 0.1	0.01 to 0.1	1.9
WSLP0805	0805	0.5	0.01 to 0.05	0.01 to 0.05	4.8
WSLP1206	1206	1.0	0.005 to 0.05	0.001 to 0.05	16.2
WSLP2010	2010	2.0	0.004 to 0.01	0.001 to 0.01	38.9
WSLP2512	2512	3.0	0.003 to 0.01	0.0005 to 0.01	63.6

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature coefficient	ppm/°C	± 400 for 0.5 mΩ to 0.99 mΩ, ± 275 for 1 mΩ to 2.9 mΩ, ± 150 for 3 mΩ to 4.9 mΩ, ± 110 for 5 mΩ to 6.9 mΩ, ± 75 for 7 mΩ to 0.1 Ω
Operating temperature range	°C	- 65 to + 170
Maximum workin voltage	V	$(P \times R)^{1/2}$

GLOBAL PART NUMBER INFORMATION				
Global Part Numbering example: WSLP1206R0100FEA				
W	S	L	P	1 2 0 6 R 0 1 0 0 F E A
GLOBAL MODEL (8 digits)	RESISTANCE VALUE (5 digits)	TOLERANCE CODE (1 digit)	PACKAGING CODE (2 digits)	SPECIAL (up to 2 digits)
WSLP0603 WSLP0805 WSLP1206 WSLP2010 WSLP2512	L = mΩ* R = Decimal 4L000 = 0.004 Ω R0100 = 0.01 Ω	D = ± 0.5 % F = ± 1.0 %	EA = Lead (Pb)-free, tape/reel EK = Lead (Pb)-free, bulk	Reserved for future specials
* Use "L" for resistance values < 0.01 Ω				

Revision 18-Apr-12

Resistors - Ideal for Current Sensing and Pulse Applications