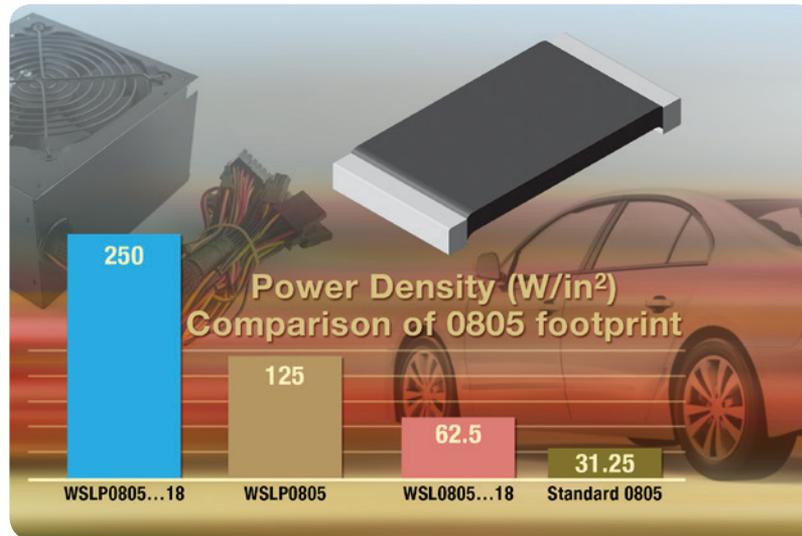




# POWER METAL STRIP RESISTORS

## WSLP0805...18

### Power Metal Strip® Resistors, Very High Power (1 W), Low Value (Down to 0.005 Ω), Surface-Mount



#### KEY BENEFITS

- 8 times the power rating for a standard 0805 footprint
- Lower CTE (coefficient of thermal expansion) mismatch with PCB as compared to ceramic chip resistors reducing the possibility of solder joint cracks resulting from thermal cycles
- Very low resistance range 0.005 Ω to 0.01 Ω

#### APPLICATIONS

##### Computer:

- DC/DC converters
- VRMs for notebook computers
- Li-ion battery management / safety
- Hard drives
- Solid-state hard drives (SSD)
- Solid-state hybrid drives (SSHD)

##### Automotive:

- Electronic controls (engine and transmission controls, audio electronics, climate controls, anti-lock brakes, etc.)

#### RESOURCES

- Datasheet: WSLP0805...18 - [www.vishay.com/doc?30298](http://www.vishay.com/doc?30298)
- For technical questions contact [ww2bresistors@vishay.com](mailto:ww2bresistors@vishay.com)
- Material categorization: For definitions please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



RoHS  
COMPLIANT

GREEN  
(5-2008)

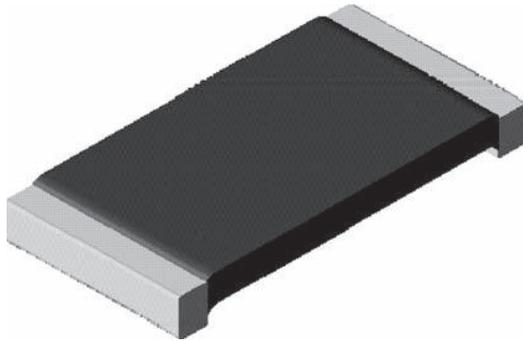
HALOGEN  
FREE

A WORLD OF  
SOLUTIONS

# POWER METAL STRIP RESISTORS

WSLP0805...18

## Power Metal Strip® Resistors, Very High Power (1 W), Low Value (down to 0.005 Ω), Surface-Mount



### FEATURES

- Very high power to foot print size ratio (1 W in 0805 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 0.005 Ω)
- All welded construction
- Solid metal nickel-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)
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

| STANDARD ELECTRICAL SPECIFICATIONS |      |   |                  |                             |                                   |
|------------------------------------|------|---|------------------|-----------------------------|-----------------------------------|
| GLOBAL MODEL                       | SIZE | POWER RATING<br>$P_{70\text{ }^\circ\text{C}}$<br>W | TOLERANCE<br>± % | RESISTANCE VALUE RANGE<br>Ω | WEIGHT (typical)<br>g/1000 pieces |
| WSLP0805...18                      | 0805 | 1.0   | 1.0, 5.0         | 0.005 to 0.01               | 4.8                               |

| TECHNICAL SPECIFICATIONS    |        |  |
|-----------------------------|--------|--|
| PARAMETER                   | UNIT   | RESISTOR CHARACTERISTICS                         |
| Temperature coefficient     | ppm/°C | ± 110 for 5 mΩ to 6.9 mΩ, ± 75 for 7 mΩ to 10 mΩ |
| Element TCR                 | ppm/°C | < 20   |
| Operating temperature range | °C     | -65 to +170                                      |
| Maximum working voltage     | V      | $(P \times R)^{1/2}$                             |

| GLOBAL PART NUMBER INFORMATION                    |   |   |   |   |   |   |   |  |   |   |  |   |   |   |                                     |   |   |
|---|---|---|---|---|---|---|---|--|---|---|--|---|---|---|-------------------------------------|---|---|
| Global Part Numbering example: WSLP0805R0100FEA18 |   |   |   |   |   |   |   |  |   |   |  |   |   |   |                                     |   |   |
| W   | S | L | P | 0   | 8 | 0 | 5 | R  | 0 | 1 | 0  | 0 | F | E | A                                   | 1 | 8 |
| GLOBAL MODEL<br>WSLP0805                          |   |   |   | RESISTANCE VALUE<br>L = mΩ*<br>R = Decimal<br>5L000 = 0.005 Ω<br>R0100 = 0.01 Ω<br><br>* Use "L" for resistance values < 0.01 Ω |   |   |   | TOLERANCE CODE<br>F = ± 1.0 %<br>J = ± 5.0 % |   |   | PACKAGING CODE<br>EA = Lead (Pb)-free, tape/reel<br>EK = Lead (Pb)-free, bulk pack |   |   |   | SPECIAL<br>18 = "High power" option |   |   |

Revision 24-Feb-15