



Space-Saving WSLF1206 Power Metal Strip® Resistor Delivers Power to 5 W in Compact 1206 Case Size for High Power Density of $> 650 \text{ W/in}^2$, Offers Low Resistance Down to $0.3 \text{ m}\Omega$ to Increase Efficiency

Product Benefits:

- Compact 1206 case size
- High power rating up to 5 W
- TCR down to $\pm 75 \text{ ppm/}^\circ\text{C}$
- A proprietary processing technique produces low resistance values ranging from $0.3 \text{ m}\Omega$ to $3 \text{ m}\Omega$
- High temperature operation to $+170^\circ\text{C}$
- Solid metal manganese-copper, nickel-chromium aluminum alloy resistive element with low TCR ($< 20 \text{ ppm/}^\circ\text{C}$)
- Low thermal EMF $< 3 \text{ }\mu\text{V/}^\circ\text{C}$
- Very low inductance $< 5 \text{ nH}$ to minimize signal distortion
- Sulfur-resistant, RoHS-compliant, and halogen-free

Market Applications:

- Current sensing and pulse applications, including switching and linear power supplies, power amplifiers, shunts, power inverters, and battery management
- Industrial motor drives, robotics, power tools, HVAC systems, and UPS; graphics, data storage, and VRMs for supercomputers; and consumer appliances

The News:

Vishay Intertechnology introduces a new surface-mount Power Metal Strip current sense resistor that combines a high power rating up to 5 W, TCR down to $\pm 75 \text{ ppm/}^\circ\text{C}$, and extremely low resistance values down to $0.3 \text{ m}\Omega$ in the compact 1206 case size.

- With power ratings 20 times higher than standard resistors in the 1206 footprint, the WSLF1206 provides a power density of $> 650 \text{ W/in}^2$, allowing designers to save board space in high power circuits by utilizing the smallest resistor possible without the need to parallel resistance elements
- The device's low TCR provides stable and accurate current measurement across a wide temperature range from -65°C to $+170^\circ\text{C}$, while its low resistance values minimize power losses and improve end product efficiency
- The resistor's advanced construction results in a higher power resistor in a smaller size that maintains the superior electrical characteristics of the Power Metal Strip construction

The Key Specifications:

- Case size: 1206
- Power rating $P_{70^\circ\text{C}}$: 5 W
- TCR: $\pm 75 \text{ ppm/}^\circ\text{C}$ to $\pm 275 \text{ ppm/}^\circ\text{C}$
- Resistance value range: $0.3 \text{ m}\Omega$ to $3 \text{ m}\Omega$
- Tolerance: $\pm 1 \%$, $\pm 5 \%$
- Operating temperature range: -65°C to $+170^\circ\text{C}$



NEW PRODUCT INFORMATION

Product Group: Vishay Dale, Resistors / **October 2025**



Availability:

Samples and production quantities of the WSLF1206 are available now, with lead times of 8 to 10 weeks.

To access the product datasheet on the Vishay Website, go to
<http://www.vishay.com/ppg?30430> (WSLF1206)

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