VISHAY

The DNA of tech.™

WFM Power Metal Plate™ Current Sense Resistors

High 3 W and 4 W Power Ratings and Wide Resistance Range from 10 mΩ to 500 mΩ for Better Accuracy

AUTOMOTIVE GRADE

ADVANTAGE

Boost in power density enables use of single resistor instead of multiple in parallel improving measurement accuracy and saving space.

KEY PRODUCT FEATURES

- ✓ Superior pulse performance and superior pulse tolerance
- ✓ Low TCR (< 20ppm/°C); for better temperature stability
- ✓ Tight tolerance (± 1 %); improves measurement accuracy

MARKETS & APPLICATIONS

MOBILITY

- Electronic controls
- Brushless DC motor controls
- Electric and hybrid controls

INDUSTRIAL

- Air conditioning / heat pump

CONSUMER

- Air conditioning / heat pump
- Cookers, refrigerators, washers, dryers

COMPUTER

- DC/DC converter
- RMs for servers

ENERGY SECTOR

- Oil and gas well drilling

RESOURCES

Order Samples | Product Page | Contact Us | Infographics | Videos | 3D Models | Capabilities and Custom Options

ADDITIONAL BENEFITS

- Features a construction that incorporates an improved thermal management design utilizing a copper heat spreader, enabling high power density and lifetime stability
- Ideal for all types of current sensing and pulse applications including switching and linear power supplies, instruments, power amplifiers, shunts, power inverters, and battery management

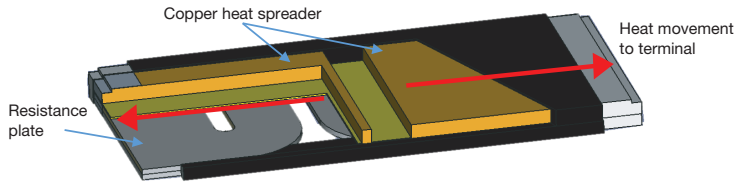
Product Characteristics

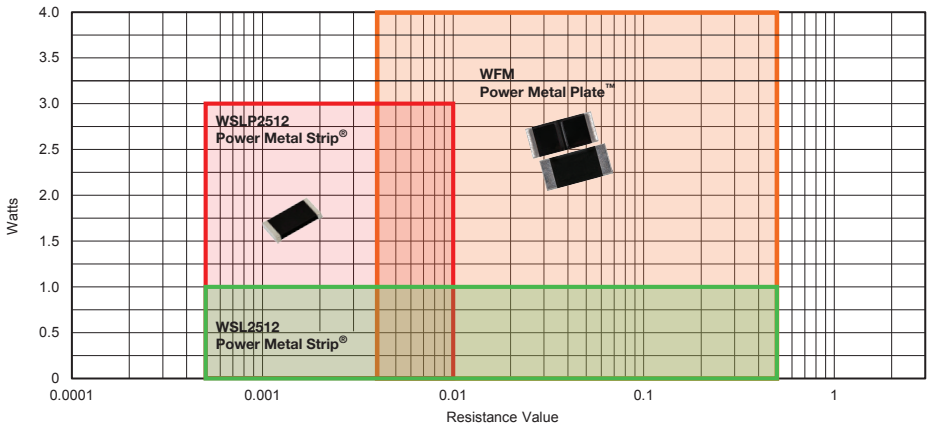
Product	Resistance Range (Ω)	Thermal Resistance (°C/W)	Alloy
WFMA2010	0.01 to 0.0329	< 30	Mn-Cu
WFMB2010	0.033 to 0.5	< 55	Ni-Cr
WFMA2512	0.01 to 0.0329	< 25	Mn-Cu
WFMB2512	0.033 to 0.5	< 40	Ni-Cr

Thermally Efficient Design

Copper has a higher thermal conductivity than most metals. The copper plate of the WFM efficiently transfers the heat generated in the resistive element to the PCB, which enables a higher rated power for the standard footprint. This design minimizes hotspot temperature extremes, which leads to superior long term stability at higher rated power.

The WFM extends the resistance range for high power surface-mount current sense applications.





The Automotive Grade performance makes the WFM an ideal choice for demanding power applications that require superior stability and high power density. Please contact us, if you would like to **purchase** or order **samples**.