



# DID YOU KNOW? TWO KEY FEATURES OF WFM RESISTORS

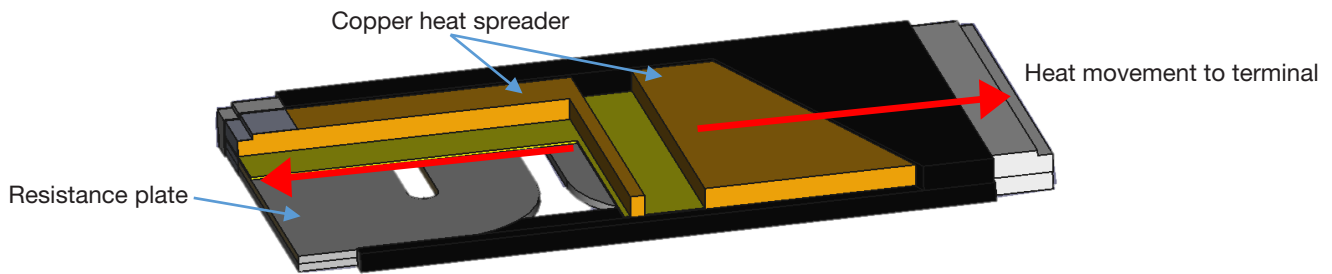


Designers are continually striving to reduce board space and increase the power handling capability of their equipment, while simultaneously meeting ever-increasing long term stability requirements. The Power Metal Plate™ series has two key construction features that extend resistance range while supporting these higher power ratings for current sense applications.

## Thermal Efficiency + Resistance Alloy = Life Time Stability

### 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.



### Resistance Alloy

Power Metal Plate current sense resistors use a nickel chromium alloy for resistance values of 33 mΩ and greater. This alloy has superior stability at higher operating temperatures (220 °C) than copper manganese alloys (185 °C), which provides two application benefits. First, WFM devices are able to withstand higher temperatures with less lifetime drift. Second, the resistors have improved pulse capability due to a greater element mass for the same resistance value.

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

