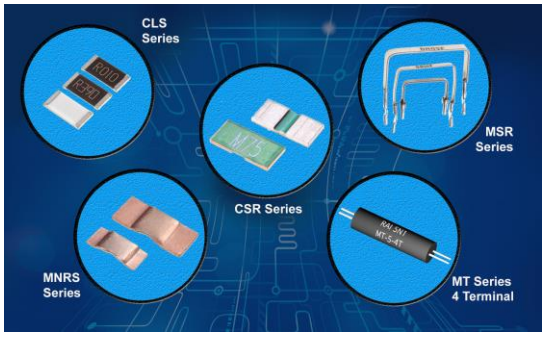
Company news

Reference: **RIE006**

Riedon targets low cost current sensing applications with a full line up of low ohmic value resistors

Alhambra, California, USA, 5 November 2013 – Riedon, a specialist manufacturer of cutting-edge resistive solutions, is targeting the demanding requirements of current sensing and shunt applications with its comprehensive portfolio of low ohmic value resistors, ranging from the economical bare metal element MSR series through to its CLSA series chip resistors that provide AEC-Q200 compliance for use in harsh automotive environments. Utilizing various technologies, Riedon offers ±1% tolerance resistances from 0.5 milliohms up to 1 ohm in various package formats with TCRs[1] as low as ±20ppm/^{o}C and power ratings up to 5 Watts. For tolerances down to ±0.1%, Riedon is also able to supply four terminal versions of its axial lead low ohm power resistor.



Riedon's MSR series uses a bare metal element in an all-welded construction for through-hole circuit board mounting to provide resistance values from 5mΩ to 100mΩ, while also achieving low inductance (<10nH) and low TCR

[1] *TCR = temperature coefficient of resistance*

(±20ppm/^{o}C). MSR resistors are available in 1, 3 and 5-Watt power ratings with tolerances of ±1% or ±5%. For surface mount applications, Riedon has several chip resistor solutions: its MNRS chip shunt resistors offer excellent long-term stability and low inductance with 4- and 6-Watt ratings and resistances from 1mΩ to 4mΩ; the CSR family of ultra low ohm metal strip chip resistors come in three sizes (1206 / 2010 / 2512) for power ratings from 1 to 3 Watts, with standard and customized resistance values from 0.5 mΩ to 15mΩ; and featuring an alumina substrate for high power dissipation the CLS/CLSA series of chip resistors operate over -55^{o}C to +155^{o}C, with the CLSA parts meeting the Automotive Engineering Council's AEC-Q200 stress test qualification.

"Current sensing applications[2] insert a low ohmic precision resistor in series with the load current, creating a small voltage drop that can be readily measured and used to calculate the current flowing through the resistor", explains Phil Ebbert, Riedon's VP of Engineering, "Resistance values of just a few milliohms allow currents of several Amps, even tens of Amps, to be handled with device power ratings up to 5 Watts. Riedon's capability to produce such low ohmic values, with well defined tolerances, enables it to serve a wide range of current sensing and shunt resistor applications."

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[2] *Current sensing is a ubiquitous technology that has widespread application in many different types of electronic equipment. While not an exhaustive list, some examples include: portable test equipment, medical monitoring and diagnostic equipment, energy monitoring, metering equipment, electric power tools, sensors, DC to DC converters, voltage regulators, motor controls, motion controls and instrumentation.*

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About Riedon Inc.

For more than 45 years, since its formation in 1960, Riedon has been at the cutting edge of resistive solutions, supplying Wirewound, Thick & Thin Film, and also Foil resistive products to industries as diverse as Aerospace, Military and Instrumentation.
Riedon employs more than 130 team members worldwide and has manufacturing, technical support and sales facilities in the U.S., Europe, Asia, and Mexico.