

Product Update Memo

CURRENT SENSE RESISTORS



October, 2015

Select Bourns® Current Sense Resistors are Qualified for AEC-Q200 Automotive Applications

Select Bourns® power metal strip current sense resistors are now AEC-Q200 qualified for automotive applications. These SMT chips have a low temperature coefficient to help ensure a stable operating accuracy over wide temperature ranges.

Current sense resistors are growing in popularity due to their high measurement accuracy and relatively low cost compared to other technologies. These resistors detect and convert current to an easily measured voltage which is proportional to the current through the device.

For higher current measurement accuracy Bourns offers 2-terminal resistors that can be used with additional current sensing trace on the PCB as well as 4-terminal resistors. The current sense resistors complement the other circuit conditioning components offered by Bourns such as power inductors, rectifier diodes and zener diodes.

Series	Size	Rated Power	Resistance Range	Temperature Coefficient
CRA	2512	3 W	10 to 100 milliohms	±75 ppm/°C
CRE	2512	2 W/3 W	1 to 9 milliohms	±75 ppm/°C
CRF	0805/1206/2512	0.5 W/1 W/2 W	1 to 50 milliohms	±75/±100/±275 ppm/°C
CST	0612 – 4 terminal	1 W	0.5 to 2 milliohms	±100/±200 ppm/°C

Features

- Operating temperature ranges from -55 °C to +170 °C
- Mn/Cu or Ni/Cu alloy resistor
- Inductance less than 5 nH
- **AEC-Q200 qualified, automotive grade**
- RoHS compliant*

Applications

- Automotive
- Power supplies
- Stepper motor drives
- Battery packs
- White goods