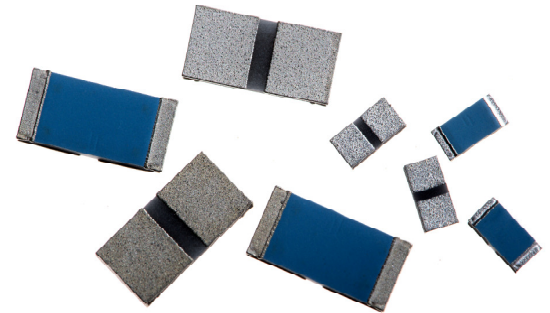


HPDC Series High Power Density Chip Resistors

Features:

- Aluminum nitride (AlN) substrate
- Wide area solder terminations
- Offers >3 x standard power density
- Power rating up to 3.5W @70°C
- Overload rating up to 7.7W for 5s
- Thick film element



Description:

HPDC series chip resistors use an aluminium nitride (AlN) ceramic substrate which has about 6 times the thermal conductivity of alumina, which is the conventional substrate material for chip resistors. In addition they feature large area terminations for improved thermal contact with a PCB. As a result, heat generated in the resistor element is effectively conducted away, reducing the temperature rise.

Because of these features, HPDC resistors offer a high power density solution with ratings of 2.4W in 1206 and 3.5W in 2512 footprints. The short term overload performance is also enhanced, at 4.7W in 1206 and 7.7W in 2512 for 5 seconds, making them ideal in active capacitor bleed circuits.

These high power resistors may also be used in temperature controlled heating applications in which the power applied is restricted only by the maximum element temperature of 155°C and the maximum termination temperature of 110°C.

Applications:

- Power supply
- Motor drive
- Actuator control
- Active capacitor bleed
- Power amplifier
- Local heater

Benefits:

- The use of a high power density part reduces the PCB footprint required.
- Low thermal impedance minimises the temperature rise and enhances the reliability of the assembly.
- High overload withstand gives reliable product performance under high momentary load conditions.