

Over-voltage protection

TDK offers varistors in SMD design with high surge current capability

TDK Corporation presents two new varistor series in SMD design. The types of both series are available for a wide range of operating voltages from 175 V_{RMS} to 460 V_{RMS}, corresponding to 225 V_{DC} to 615 V_{DC}. While the B72210M* series of surge devices, which are equivalent to S14 leaded disk varistors, offers a surge current capability of 6000 A, the B72214M* series types, which are equivalent to S20 leaded disk varistors, have a high surge current capability of 10,000 A. All types are designed for a high operating temperature of a maximum of +125 °C and extremely damp heat environment (85% relative humidity at +85 °C).

The new SMD high surge series is qualified to AEC-Q200. In terms of designs, all types are available in a horizontal as well as vertical version, which offers higher design flexibility. The horizontal version of the B72210M* series has dimensions of 22 x 15 x 11 mm, while the B72214M* series has dimensions of 27 x 18 x 11 mm, (L x W x H). The vertical types have dimensions of 15 x 10 x 20 mm and 18 x 10 x 25.5 mm, respectively. This results in space saving compared to leaded varistors with the same performance.

Main applications

- On-board chargers, power supplies, frequency converters, photovoltaic systems and household appliances

Main features and benefits

- Wide range of operating voltages from 175 V_{RMS} to 460 V_{RMS}
- High surge current capability of 6000 A or 10,000 A
- Horizontal and vertical designs
- Qualified according to AEC-Q200
- Space saving compared to leaded disk varistors with the same performance