

Multilayer ceramic chip capacitors: MLCCs with a rated AC withstanding voltage

July 27 2012



TDK Corporation has developed a multilayer ceramic chip capacitor that – in addition to its rated DC voltage of 630 V – can withstand a rated AC voltage of 500 VRMS for 60 s and 600 VRMS for 3 s. Thanks to its optimized internal electrode structure the new TDK C3216 and C3225 types exhibit superior AC withstanding voltage, allowing guaranteed ratings to be given not only for the customary DC voltages but also for AC voltages.

The new MLCC is available in two form factors: 3216 and 3225 (IEC). The C3216 type is available for a capacitance range from 1.0 nF to 15.0 nF, while the C3225 type offers a capacitance value of 22.0 nF. Mass production of the new TDK MLCCs started in July 2012.

The main applications for the MLCCs are DC-DC converters and [AC](#)-DC converters, as well as noise filters requiring superior AC strength. The thermal characteristics of the new components are compliant with X7R specifications (temperature range from -55 °C to +125 °C, capacitance tolerance of ± 15 percent).

Provided by TDK Corporation

Citation: Multilayer ceramic chip capacitors: MLCCs with a rated AC withstanding voltage (2012, July 27) retrieved 1 May 2024 from <https://phys.org/news/2012-07-multilayer-ceramic-chip-capacitors-mlccs.html>

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