

C Series—Board Flex Solutions MLCC Kit

Consumer Grade Mid Voltage Soft Termination Capacitor Kit

The TDK C Series Mid Voltage Soft Termination MLCCs were designed for applications where mechanical stress and extreme temperature swings are a concern. Conventional termination materials used in standard MLCCs are inflexible, therefore vibration, shock, and thermal expansion and contraction have the potential to crack or shear the solder joint between the component and the circuit board. The soft termination design mitigates cracking by incorporating an additional conductive resin layer to the end terminal electrodes. This allows the capacitor to better absorb mechanical stress, while TDK's superior layer bonding technique reduces the risk of separation failure. Designers who are specifically concerned with mechanical stress or who have had issues in the past with capacitor cracking should look to TDK's C Series Mid Voltage Soft Termination MLCCs.

Features

- Improved board bending resistance
- Improved temperature cycle performance
- Conductive resin absorbs external stress to protect solder joints and capacitor body
- RoHS, WEE, and REACH compliant

Applications

- Output filter of DC-DC converters
- Buck (input filter) topology
- LED Lighting
- Telecom Base Station
- Output filter for Boost (Step-Up) topology
- Smart Meter
- Switch Mode Power Supply
- Applications where mechanical stress is a concern

Mid Voltage

Soft Termination

Consumer









Datasheet

C-STMV01-E3-KIT Board Flex Solutions Kit Includes:

Case Sizes: 2012 (EIA 0805), 3216 (EIA 1206), 3225 (EIA 1210), 4532 (EIA 1812), & 5750 (EIA 2220)

Rated Voltage*: 100V-630V Capacitance Range: 0.01μF-10μF

*Operating condition is 48V+





C-STMV01-E3-KIT Board Flex Solutions Kit Includes:

| TDK Item List | Item Description |
|---------------------|---|
| C2012X7R2E103K125AE | Soft Termination MLCC - SMD/SMT - 0805 .01uF 250V X7R ±10% |
| C3216X7R2J103K115AE | Soft Termination MLCC - SMD/SMT - 1206 .01uF 630V X7R ±10% |
| C2012X7R2E223K125AE | Soft Termination MLCC - SMD/SMT - 0805 .022uF 250V X7R ±10% |
| C3216X7R2J223K130AE | Soft Termination MLCC - SMD/SMT - 1206 .022uF 630V X7R ±10% |
| C2012X7T2E473K125AE | Soft Termination MLCC - SMD/SMT - 0805 .047uF 250V X7T ±10% |
| C3216X7T2J473K160AE | Soft Termination MLCC - SMD/SMT - 1206 .047uF 630V X7T ±10% |
| C2012X7T2E104K125AE | Soft Termination MLCC - SMD/SMT - 0805 .1uF 250V X7T ±10% |
| C3216X7T2W104K160AE | Soft Termination MLCC - SMD/SMT - 1206 .1uF 450V X7T ±10% |
| C3225X7T2J104K160AE | Soft Termination MLCC - SMD/SMT - 1210 .1uF 630V X7T ±10% |
| C2012X7R2A104K125AE | Soft Termination MLCC -SMD/SMT - 0805 .1uF 100V X7R ±10% |
| C2012X7S2A224K085AE | Soft Termination MLCC - SMD/SMT - 0805 .22uF 100V X7S ±10% |
| C3216X7T2E224K160AE | Soft Termination MLCC - SMD/SMT - 1206 .22uF 250V X7T ±10% |
| C3225X7T2W224K200AE | Soft Termination MLCC - SMD/SMT - 1210 .22uF 450V X7T ±10% |
| C4532X7T2J224K200KE | Soft Termination MLCC - SMD/SMT - 1812 .22uF 630V X7T ±10% |
| C2012X7S2A474K125AE | Soft Termination MLCC - SMD/SMT - 0805 .47uF 100V X7S ±10% |
| C3216X7R2A474K160AE | Soft Termination MLCC - SMD/SMT - 1206 .47uF 100V X7R ±10% |
| C4532X7T2W474K230KE | Soft Termination MLCC - SMD/SMT - 1812 .47uF 450V X7T ±10% |
| C2012X7S2A105K125AE | Soft Termination MLCC - SMD/SMT - 0805 1uF 100V X7S ±10% |
| C3216X7R2A105K160AE | Soft Termination MLCC - SMD/SMT - 1206 1uF 100V X7R ±10% |
| C4532X7T2E105K250KE | Soft Termination MLCC - SMD/SMT - 1812 1uF 250V X7T ±10% |
| C3216X7S2A225K160AE | Soft Termination MLCC - SMD/SMT - 1206 2.2uF 100V X7S ±10% |
| C3225X7R2A225K230AE | Soft Termination MLCC - SMD/SMT - 1210 2.2uF 100V X7R ±10% |
| C3225X7S2A475K200AE | Soft Termination MLCC - SMD/SMT - 1210 4.7uF 100V X7S ±10% |
| C5750X7S2A106K230KE | Soft Termination MLCC - SMD/SMT - 2220 10uF 100V X7S ±10% |