

C Series—Board Flex Solutions MLCC Kit

Consumer Grade Low 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 (Step-Down) Topology
- Switch Mode Power Supply
- Applications where mechanical stress is a concern

C-STLV01-E3-KIT Board Flex Solutions Kit Includes:

Case Sizes: 1608 (EIA 0603), 2012 (EIA 0805), 3216 (EIA 1206), & 3225 (EIA 1210) Rated Voltage*: 25-50V Capacitance Range: 1000pF-10µF

*Operating condition is $\leq 40V$

Now Available at: Click the Digi-Key logo for ordering information







Soft Termination

Low Voltage





Smart Meter

- LED Lighting
- **Telecom Base Station**



Datasheet



C-STLV01-E3-KIT Board Flex Solutions Kit Includes:

TDK Item List	Item Description
C1608X7R1H102K080AE	Soft Termination MLCC -SMD/SMT - 0603 1000pF 50V X7R ±10%
C1608X7R1H103K080AE	Soft Termination MLCC -SMD/SMT - 0603 .01uF 50V X7R ±10%
C1608X7R1H104K080AE	Soft Termination MLCC -SMD/SMT - 0603 .1uF 50V X7R ±10%
C2012X7R1H104K125AE	Soft Termination MLCC -SMD/SMT - 0805 .1uF 50V X7R ±10%
C2012X7R1H474K125AE	Soft Termination MLCC - SMD/SMT - 0805 .47uF 50V X7R ±10%
C2012X7R1H105K125AE	Soft Termination MLCC - SMD/SMT - 0805 1uF 50V X7R ±10%
C3216X7R1H105K160AE	Soft Termination MLCC - SMD/SMT - 1206 1uF 50V X7R ±10%
C2012X7R1V225K125AE	Soft Termination MLCC - SMD/SMT - 0805 2.2uF 35V X7R ±10%
C3216X7R1H225K160AE	Soft Termination MLCC - SMD/SMT - 1206 2.2uF 50V X7R ±10%
C2012X7R1E475K125AE	Soft Termination MLCC -SMD/SMT - 0805 4.7µF 25V X7R ±10%
C3216X7R1V475K160AE	Soft Termination MLCC - SMD/SMT - 1206 4.7uF 35V X7R ±10%
C3225X7S1H475K230AE	Soft Termination MLCC - SMD/SMT - 1210 4.7uF 50V X7S ±10%
C3216X7R1E106K160AE	Soft Termination MLCC - SMD/SMT - 1206 10uF 25V X7R ±10%
C3225X7S1H106K250AE	Soft Termination MLCC - SMD/SMT - 1210 10uF 50V X7S ±10%