High Voltage Ceramic Capacitor Solutions

500 – 10,000 VDC
Product Portfolio Summary

Surface Mount Technology

- Case Sizes (Inches): 0603 – 6560
- Voltage Ratings DC: 500 – 10 kV
- Dielectric Material: C0G and X7R
- Maximum Operating Temperature: up to +200°C
- Capacitance Range: 1.0 pF to 12 μF

Leaded Technology

- Lead Spacing (mm): 2.54, 4.32, 5.08, 5.59, 6.35, 6.98, 7.62, 9.52, 10.16, 12.06, 12.70, 14.60, 15.24, 17.14, 17.78, 24.76, 29.84 and 34.92
- Voltage Ratings DC: 500 – 10 kV
- Voltage Ratings AC: 250 – 760
- Dielectric Material: C0G and X7R
- Maximum Operating Temperature: up to +200°C
- Capacitance Range: 1.0 pF to 12 μF
Advances in KEMET’s high voltage dielectric technology has led to the development of some of the highest capacitance values and in the smallest case sizes available in the industry. With the most recent launch of EIA 0603 case size devices in voltage ratings of 500 – 1,000 VDC, PCB miniaturization and integration of more features into a single circuit can be realized. Compared to EIA 1206 case size devices, the smaller 0805 and 0603 case sizes require 44% and 75% less board space respectively.

Concerned with component damage due to high levels of board flexure, extreme handling conditions or, thermal cycling? KEMET’s Flexible Termination Technology (FT-CAP) is available on most high voltage surface mount products. This soft termination system reduces the transfer of board stress to the capacitor, reducing the likelihood of flex cracks.
COMMERCIAL GRADE SMD MLCC (500 – 3,000 VDC)
Surface Mount High Voltage Ceramic Capacitors are available in C0G and X7R dielectric materials.

AUTOMOTIVE GRADE SMD MLCC (500 – 3,000 VDC)
Surface Mount High Voltage Ceramic Capacitors meet the demanding Automotive Electronics Council’s AEC–Q200 qualification requirements.

ARCSHIELD® TECHNOLOGY (500 – 1,000 VDC)
Developed on the principle of a partial Faraday cage, this internal shield electrode system offers unrivaled performance and reliability when compared to external surface coating technologies. Commercial and Automotive grade versions available.

KEMET POWER SOLUTIONS (500 – 10,000 VDC)
KEMET Power Solutions (KPS) High Voltage capacitors utilize a proprietary lead-frame technology to vertically stack one or more multi-layer ceramic chip capacitors.

HIGH VOLTAGE RADIAL CAPACITOR SOLUTIONS
Provides the most advanced mechanical and thermal stress performance by mechanically isolating the capacitors from the PCB.
Why Choose KEMET

KEMET Electronics Corporation is a leading global supplier of electronic components. We offer our customers the broadest selection of capacitor technologies in the industry, along with an expanding range of electromechanical devices, electromagnetic compatibility solutions and supercapacitors. Our vision is to be the preferred supplier of electronic component solutions for customers demanding the highest standards of quality, delivery and service.

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For more information on KEMET High Voltage Solutions, please visit the following web pages:

High Voltage
www.kemet.com/High-Volt-MLCC

ArcShield Technology
www.kemet.com/ArcShield-Technology

High Temperature
www.kemet.com/Hi-Temp-Ceramic

Safety Certified Ceramic Capacitors
www.kemet.com/safety

Leaded Ceramic Capacitors
www.kemet.com/LeadedMLCCs

Flex Mitigation
www.kemet.com/flex