INDUSTRY

Solid State Drives

Electronic Components
KEMET
CHARGED.

Why Choose KEMET

KEMET 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.

Trends

- Increasing storage: from gigabyte to terabyte
- Long life: 5 years minimum for SATA and PCIe interfaces
- Increasing hold up time needs

Circuit Conditions

- NAND flash memory < 70°C
- Component height limitations: 1.2 – 2.0 mm
- Input voltage/current of 5 VDC or 12 VDC/1 – 2 A
- Drive start-up time in ms
- Redundancy in capacitance bank

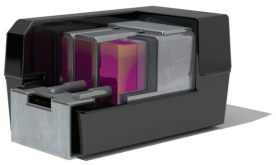
Capacitor Requirements

- High energy density
- Low profile
- Long life at < 70°C

For more information, samples and engineering kits, please visit us at www.kemet.com or call 1.877.myKEMET.

Applications

- EMI filters
- DC/DC converters
- Defense
- Portable electronics
- Telecommunications

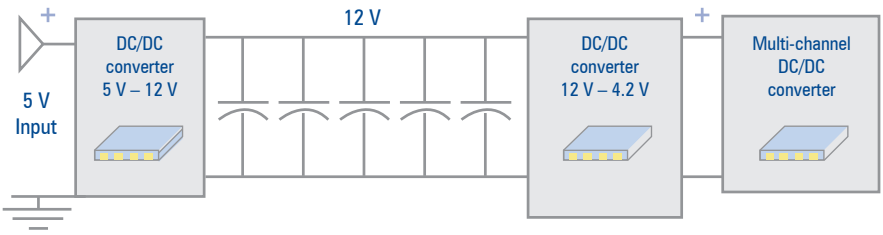


Polymer Capacitors

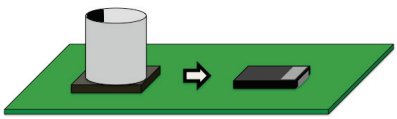
Overview

In the world of big data, Solid State Drives (SSDs) are becoming increasingly larger. Higher performance SSDs use larger buffers, which are volatile. When power is lost, they require a large bank of energy to finish flushing out those buffers.

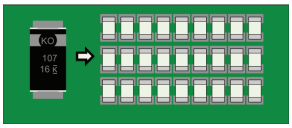
The long life at high temperature requirements (up to 85°C and occasionally higher) drive the need for solid capacitor technologies such as KEMET's T545 High Energy Polymer. These capacitors offer the highest energy densities with profile heights as low as 1.2 mm. With virtually no wear-out mechanism, the T545 Series offers long operational life at temperatures beyond 70°C.



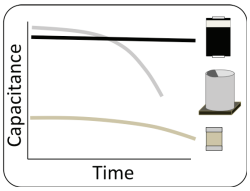
Feature Highlights



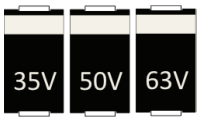
Low Profile



High Capacitance



Long Life and Stable Capacitance



Higher Voltage Options

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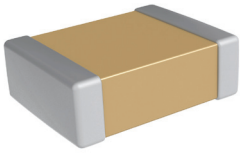
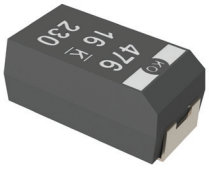
KEMET Products

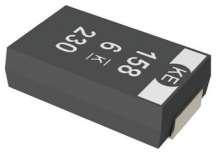
KEMET Series	Voltage (VDC)	Capacitance	Temperature	Form Factor
Multilayer Ceramic				
X7R	6.3 – 250	10 pF – 47 μF	-55°C to +125°C	Surface Mount
Polymer Low ESR				
T520	Up to 63	Up to 330 μF	-55°C to +125°C	Surface Mount
High Energy Polymer				
T545	6.3 – 16	Up to 1,500 μF	-55°C to +125°C	Surface Mount



X7R



T520



T545

Frequently Selected Part Numbers

Max Application Voltage	Voltage	Capacitance (μF)	Case Size	KEMET Part Number	Energy (mJ)
5.67 V	6.3	1000	7360-20	T545H108M006ATE055	11.57
5.67 V	6.3	1500	7360-20	T545H158M006ATE035	17.36
5.67 V	6.3	470	7343-15	T545W477M006ATE035	5.44
5.67 V	6.3	470	7343-15	T545W477M006ATE055	5.44
5.67 V	6.3	470	7343-20	T545V477M006ATE055	5.44
9 V	10	220	7343-20	T545V227M010ATE045	7.92
9 V	10	330	7343-40	T545Y337M010ATE035	11.88
14.4 V	16	47	7343-15	T545W476M016ATE045	3.64
14.4 V	16	47	7343-20	T545V476M016ATE070	3.64
14.4 V	16	150	7343-43	T545X157M016ATE040	11.61
14.4 V	16	180	7360-20	T545H187M016ATE055	13.94
14.4 V	16	220	7343-43	T545X227M016ATE035	17.03
14.4 V	16	330	7343-43	T545X337M016ATE025	25.55
14.4 V	16	100	7343-20	T545V107M016ATE050	7.74
18 V	20	47	7343-20	T545V476M020ATE090	5.80

RoHS
Pb Lead-free
HF Halogen Free