



Network Infrastructure Equipment

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 speed of 40 gigabytes per second
- Longer reliability
- Higher humidity and temperature breakdown
- Reduce energy consumption
- Thinner

Circuit Conditions

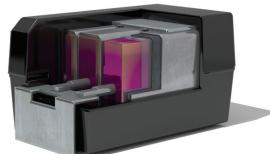
- Input/output voltage of 12 – 48 VDC/1 – 70 VDC
- Increasing temperature
- Increasing humidity
- Reduced dimensions

Capacitor Requirements

- Low ESR
- Lower profile
- High capacitance

Applications

- High speed servers
- DC/DC converters
- Microprocessor decoupling
- High ripple current applications
- Solid state drives
- Telecommunications



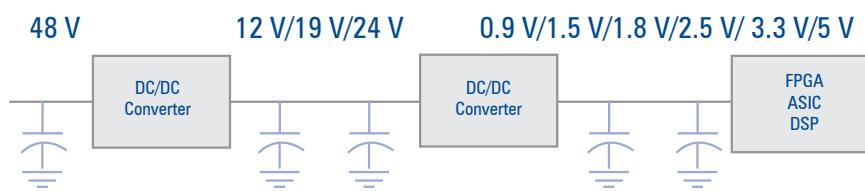
Polymer Capacitors

Overview

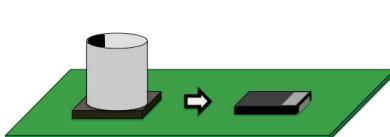
As network communication speeds increase, so do the demands of the ASICs found in the equipment supporting the infrastructure. These high performance ICs require high performance passive components to support continuous reliable operation. KEMET T520 and T521 polymer capacitors provide high capacitance with a wide operational temperature range and low ESR. When lower ESR is needed, X7R and COG ceramic capacitors can be used in parallel.

Combining daughter cards into a single design often places height limitations on components. KEMET chip style capacitors can assist with combining more components in a smaller footprint.

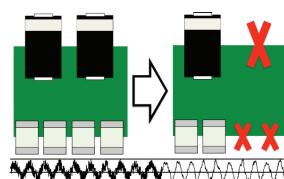
Solid state capacitor technologies such as Polymer Aluminum, Polymer Tantalum, and MLCC are best suited for the long term reliability needs for network communication equipment.



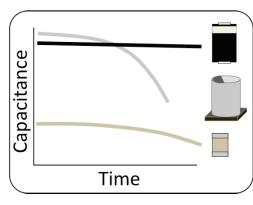
Feature Highlights



Low Profile



Low ESR Low ESR/ESL



Long Life and Stable Capacitance



Higher Voltage Options

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



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KEMET Products

Product Family	KEMET Series	Voltage (VDC)	Capacitance	Form Factor
Power Management/High Voltage				
Multilayer Ceramic	X7R	6.3 – 250	10 pF – 47 µF	Surface Mount
	COG	10 – 200	0.5 pF – 0.47 µF	
Low ESR Polymer	T520, T521	Up to 63	Up to 330 µF	Surface Mount
Low Voltage / Low ESR				
Solid Polymer Aluminum	A700	2 – 16	6.8 – 560	

Frequently Selected Part Numbers

Application	Series	Part Number	Capacitance (µF)	Voltage (VDC)	ESR (mΩ)	Ripple (A _{rms})	Case Size
0.9 – 1.8 V	A700	A700X567M002ATE005	560	2	5	3900	7343-43
0.9 – 2.2 V	T520	T520V477M2R5ATE006	470	2.5	6	5.6	7343-19
3.3 – 5 V	T520	T520B227M006ATE025	220	6.3	25	2.3	3528-20
48 V	T521	T521D475M063ATE075	4.7	63	75	1.7	7343-31
12 V	T521	T521D157M016ATE050	150	16	50	1.9	7343-30
12 V	T521	T521X337M016ATE025	330	16	25	3.1	7343-43
19 V	T521	T521D336M025ATE060	33	25	60	1.9	7343-30
0.9 – 2.2 V	T528	T528Z477M2R5ATE005	470	2.5	5	8.1	7343-17
0.9 – 2.2 V	T520	T520D108M2R5ATE006	1000	2.5	6	5.9	7343-30
3.3 – 5 V	T520	T520V477M006ATE035	470	6.3	35	2.3	7343-20
3.3 – 5 V	T520	T520B157M006ATE035	150	6.3	25	2.3	3528-20
24 V	T521	T521V156M035ATE100	15	35	100	1.4	7343-20
24 V	T521	T521X476M035ATE030	47	35	30	2.9	7343-43

