PRODUCTS

Surface Mount Varistors

V Series, 85°C/150°C

Electronic Components
KEMET
CHARGED.

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.

Features & Benefits

- Surface mount form factor
- Operating ambient temperature of:
  - -55°C to +125°C (for VA, VC, VG Series)
  - -55°C to +150°C (for VE Series)
  - -40°C to +85°C (for VP Series)
- Short response time
- AEC-Q200 grades available
- RoHS compliant

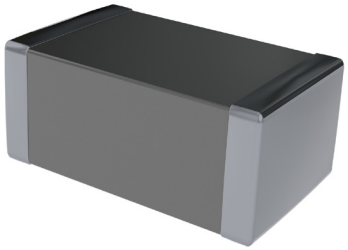
Product Checklist

- What is the operating voltage of the system to be protected?
- What is the maximum transient voltage that the protected system can withstand?
- What overvoltages can the system be exposed to? Wave shape? Amplitude? Duration? Is the surge repeatable or not? How much power would be dissipated?
- What are the operational conditions of your application? Do you have a specification available?
- Does the application have size constraints? If so, what are they?

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

Applications

- Automotive electronics
- Telecommunications infrastructure
- I/O ports & controllers
- Lighting ballast
- Medical instruments
- Industrial & commercial power system protection
- ESD protection
- Load dump and jump start protection
- Voltage surge protection



Electrical/Physical Characteristics

Series	Case Sizes (mm)	Steady State Applied Voltage		Transient	
		DC Voltage Range (VDC)	AC Voltage Range (Vrms)	Peak Single Pulse Surge Current, 8/20 μs (Imax)	Single Pulse Surge Energy, 10/1,000 μs (Wmax)
VA	2.0 to 5.7 length 1.25 to 5.00 width	16 to 56	14 to 40	120 to 1,200 A	0.3 to 10.5 J
VC VE	1.6 to 5.7 length 0.80 to 5.00 width	3 to 170	2 to 130	30 to 1,200 A	0.1 to 12.2 J
VG	1.6 to 3.2 length 0.80 to 2.5 width	18	14	20 to 30 A	0.05 to 0.1 J
VP	8.0 to 10.0 length 6.3 to 8.0 width	14 to 385	11 to 300	100 to 1,200 A	0.6 to 30 J

Ordering Information

VA Series

VA	0805	K	121	R	014
Series	Chip Size Code	Tolerance	Rated Peak Single Pulse Transient Current (A)	Packaging/Termination	Maximum Continuous Working Voltage (Vrms AC)
Varistor SMD 125°C Automotive Multilayer Chip	0805 = 0805 1206 = 1206 1210 = 1210 1812 = 1812 2220 = 2220	K = ±10%	121 = 120 201 = 200 401 = 400 801 = 800 122 = 1,200	R = Reel 180 mm / Ni Sn Barrier Terminations	12 V Power Supply 014 = 14 017 = 17 24 V Power Supply 020 = 20 030 = 30 42 V Power Supply 040 = 40

Surface Mount Varistors

V Series, 85°C/150°C

Electronic Components KEMET CHARGED.®

Ordering Information (Cont.)

VC Series

VC	0603	M	300	R	002
Series	Chip Size Code	Tolerance	Rated Peak Single Pulse Transient Current (A)	Packaging/Termination	Maximum Continuous Working Voltage (Vrms AC)
Varistor SMD 125°C Low Voltage Multilayer Chip	0603 = 0603 0805 = 0805 1206 = 1206 1210 = 1210 1812 = 1812 2220 = 2220	K = ±10% L = ±15% M = ±20%	300 = 30 101 = 100 121 = 120 151 = 150 201 = 200 251 = 250 301 = 300 401 = 400 501 = 500 601 = 600 801 = 800 102 = 1,000 122 = 1,200	R = Reel 180 mm / Ni Sn Barrier Terminations	002 = 2 004 = 4 006 = 6 008 = 8 011 = 11 014 = 14 017 = 17 020 = 20 025 = 25 030 = 30 035 = 35 040 = 40 050 = 50 060 = 60 075 = 75 095 = 95 115 = 115 130 = 130

VE Series

VE	0603	M	300	R	002
Series	Chip Size Code	Tolerance	Rated Peak Single Pulse Transient Current (A)	Packaging/Termination	Maximum Continuous Working Voltage (Vrms AC)
Varistor SMD High Temperature 150°C Low Voltage Multilayer Chip	0603 = 0603 0805 = 0805 1206 = 1206 1210 = 1210 1812 = 1812 2220 = 2220	K = ±10% L = ±15% M = ±20%	300 = 30 101 = 100 121 = 120 151 = 150 201 = 200 251 = 250 301 = 300 401 = 400 501 = 500 601 = 600 801 = 800 102 = 1,000 122 = 1,200	R = Reel 180 mm / Ni Sn Barrier Terminations	002 = 2 004 = 4 006 = 6 008 = 8 011 = 11 014 = 14 017 = 17 020 = 20 025 = 25 030 = 30 035 = 35 040 = 40 050 = 50 060 = 60 075 = 75 095 = 95 115 = 115 130 = 130

VG Series

VG	0603	S	020	R	014
Series	Chip Size Code	Tolerance	Rated Peak Single Pulse Transient Current (A)	Packaging/Termination	Maximum Continuous Working Voltage (Vrms AC)
Varistor SMD 125°C ESD Suppression Multilayer Chip	0603 = 0603 0805 = 0805 1206 = 1206 1210 = 1210	S = Special	020 = 2	R = Reel 180 mm / Ni Sn Barrier Terminations	014 = 14

VP Series

VP	3225	K	101	R	011
Series	Chip Size Code	Tolerance	Rated Peak Single Pulse Transient Current (A)	Packaging/Termination	Maximum Continuous Working Voltage (Vrms AC)
Varistor SMD 85°C Plastic Encapsulated	3225 = 3225 4032 = 4032	K = 10%	101 = 100 251 = 250 401 = 400 122 = 1,200	R = Reel 330 mm	011 = 11 014 = 14 017 = 17 020 = 20 025 = 25 030 = 30 035 = 35 040 = 40 050 = 50 060 = 60 075 = 75 095 = 95 115 = 115 130 = 130 140 = 140 150 = 150 175 = 175 230 = 230 250 = 250 275 = 275 300 = 300