

**Radial Zinc Oxide Varistors
VE Series, Specifications**



Part Number Determination

| VE09M00251K | | | | | | |
|-------------|---|---|---|---|-----------|---|
| VE | 09 | M | 0 | 0251 | K | - |
| TYPE | DIA MAX | SERIES | MARKING | OPERATING VOLTAGE | TOLERANCE | PACKAGING |
| | 07=7mm 09=9mm 13=13mm 17=17mm 24=24mm | M=Varistors for general applications P=Varistors for heavy duty applications | AC Nominal voltage Use 0 for VE type | 1st digit is zero 2nd and 3rd digits are significant and the 4th represents the number of zeros to follow 0251=250V | K=±10% | -- =Bulk DA,DC,EA,EB=Ammopack DB,DD,EN,ED=T/R |

Electrical Characteristics

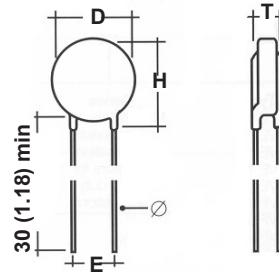
Storage Temperature: -40 to +125°C
Max. Operating Temperature: +85°C
Response Time: <25ns
Voltage Coef Temp: |K| < 0.09%/°C
Voltage Proof: 2500V
Epoxy Coating: Flame retardant UL94-V0

Marking

Type
AC nominal voltage in EIA coding
Logo
UL logo
Lot number for VE13/17/14

Package Dimensions (mm/in)

| Type | D | | H max. | t max. | Dia +10% -0.05(.002) | E +0.8 |
|------|------------------|-------------------------|-----------|-------------------------|-------------------------|-------------|
| | Ceramic diameter | Maximum coated diameter | | | | |
| VE07 | 5 (.196) | 7 (.275) | 10 (.394) | See specification table | 0.6 (.024) | 5.08 (0.20) |
| VE09 | 7 (.275) | 9 (.354) | 12 (.472) | | | |
| VE13 | 10 (.393) | 13 (.512) | 16 (.630) | | | |
| VE17 | 14 (.551) | 17 (.669) | 20 (.787) | | | |
| VE24 | 20 (.787) | 24 (.945) | 27 (1.06) | | | |



Electrical Characteristics

| Part Number | Max Operating Voltage | | Nominal Voltage @ 1mA dc | | | Max Clamping Voltage (8 x 20us) | | Max Energy Absorption (10 x 1000us) W (J) | | Max Permissible Peak Current (8 x 20us) Ip (A) | | Typical Capacitance f=1kHz | Mean Power Dissipation | Max Thickness |
|-------------|-----------------------|-----------------|--------------------------|----------------------|----------------------|---------------------------------|--------------------|---|-----------|--|----------|----------------------------|------------------------|---------------|
| | V _{rms} | V _{DC} | V _{1mA mini} | V _{1mA nom} | V _{1mA max} | V _p (V) | I _p (A) | 1 surge | 10 surges | 1 surge | 2 surges | pF | W | t mm (inches) |
| VE09M00250K | 25 | 31 | 35 | 39 | 43 | 77 | 2.5 | 1.6 | 1.0 | 250 | 125 | 1250 | 0.02 | 3.6 (.142) |
| VE07M00300K | 30 | 38 | 42 | 47 | 52 | 93 | 1 | 0.9 | 0.4 | 100 | 50 | 580 | 0.01 | 3.8 (.150) |
| VE09M00300K | | | | | | | 2.5 | 2.0 | 1 | 250 | 125 | 1050 | 0.02 | |
| VE09M00400K | 40 | 56 | 61 | 68 | 75 | 135 | 2.5 | 3.0 | 1 | 250 | 125 | 720 | 0.02 | 4.1 (.161) |
| VE13M00600K | 60 | 80 | 90 | 100 | 110 | 165 | 25 | 10 | 7 | 2500 | 1250 | 870 | 0.4 | 4.5 (.177) |
| VE09M00131K | 130 | 170 | 184 | 205 | 226 | 340 | 10 | 9.5 | 4 | 1200 | 600 | 250 | 0.2 | 4.1 (.161) |
| VE17M00131K | | | | | | | 50 | 34 | 25 | 4500 | 2500 | 1000 | 0.6 | 4.7 (.185) |
| VE09M00141K | 140 | 180 | 198 | 220 | 242 | 360 | 10 | 10 | 4 | 1200 | 600 | 235 | 0.2 | 4.2 (.165) |
| VE09M00151K | 150 | 200 | 216 | 240 | 264 | 400 | 10 | 11 | 4.1 | 1200 | 600 | 220 | 0.2 | 4.3 (.169) |
| VE17M00151K | | | | | | | 50 | 40 | 30 | 4500 | 2500 | 850 | 0.6 | 4.9 (.193) |
| VE24P01750K | 175 | 225 | 243 | 270 | 297 | 445 | 100 | 190 | | 10000 | 70000 | 2000 | 0.8 | 5.5 (.217) |
| VE09M00251K | 250 | 320 | 351 | 390 | 429 | 645 | 10 | 19 | 7.3 | 1200 | 600 | 130 | 0.2 | 5.4 (.213) |
| VE17M00251K | | | | | | | 50 | 65 | 39 | 4500 | 2500 | 500 | 0.6 | 5.9 (.232) |
| VE09M02750K | 275 | 350 | 387 | 430 | 473 | 710 | 10 | 21 | 7.4 | 1200 | 600 | 120 | 0.2 | 5.7 (.224) |
| VE17M02750K | | | | | | | 50 | 71 | 40 | 4500 | 2500 | 450 | 0.6 | 6.0 (.236) |
| VE09M00301K | 300 | 385 | 423 | 470 | 517 | 775 | 10 | 25 | 7.5 | 1200 | 600 | 100 | 0.2 | 6.0 (.236) |
| VE13M00301K | | | | | | | 25 | 45 | 20 | 2500 | 1250 | 180 | 0.4 | 6.6 (.260) |
| VE17M00301K | | | | | | | 50 | 80 | 42 | 4500 | 2500 | 400 | 0.6 | |