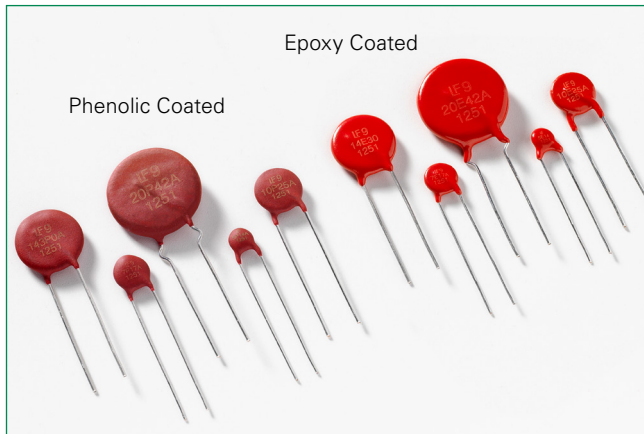


LV UltraMOV® Series

Radial Leaded Varistors



Description

The Littelfuse LV UltraMOV® Varistor Series provides an ideal circuit protection solution for DC voltage applications.

The maximum peak surge current rating can reach up to 10kA (8/20µs pulse) to protect against the damage from high peak surge current induced by indirect lightning strike interference, system switching transients, and abnormal fast transients from the power source.

Available in five model sizes: 5mm, 7mm, 10mm, 14mm, and 20mm, these device feature a wide voltage range from 14V to 125V.

Features & Benefits

- Breakthrough in low voltage varistor design provides high peak (up to 10KA) surge current rating
- High operating temperature range up to 125°C (phenolic coating option)
- Reduced footprint and volume required for surge protection
- 5 model sizes available: 5, 7, 10, 14, and 20mm
- Wide operating voltage range VM(AC)RMS 11V to 95V and V M(DC) 14V to 125V
- 10mm, 14mm and 20mm devices are UL Recognized and TUV certified with 800V isolation voltage rating.
- Lead-free, Halogen-Free and RoHS compliant

Additional Information



Resources



Accessories



Samples

Agency Approvals

| Agency | Agency Approval | Agency File Number |
|--------|--|-------------------------|
| cULus | UL 1449 | E320116 ¹ |
| UL | UL 1449 | E320116 ² |
| △ | IEC/EN61051 IEC 61051-2 IEC 61051-2-2 IEC 60950-1 (Annex Q) | J 50324242 ³ |

Notes:

- 10mm, 14mm and 20mm phenolic coated parts are UL Recognized for the US and Canada.
- All epoxy coated parts (in all sizes) are UL Recognized for the US.
- 10mm, 14mm and 20mm phenolic coated parts only.

Applications

- LED lights
- Automation control systems
- Cordless phones
- Industrial control contact relays
- Audio and video devices
- Surge protection device
- Mobile phone chargers
- Telecom power systems
- Security systems
- Wireless base stations
- Fire alarm systems

Absolute Maximum Ratings

For ratings of individual members of a series, see Device Ratings and Specifications chart

| | Low Voltage Series | Units |
|--|--------------------|-------|
| Continuous: | | |
| Steady State Applied Voltage: | | |
| AC Voltage Range ($V_{M(AC)RMS}$) | 11 to 95 | V |
| DC Voltage Range ($V_{M(DC)}$) | 14 to 125 | V |
| Transient: | | |
| Non-Repetitive Surge Current, 8/20µs Waveform (I_{TM}) | 500 to 10,000 | A |
| Non-Repetitive Energy Capability, 2ms Waveform (W_{TM}) | 0.8 to 150 | J |
| Operating Ambient Temperature Range (T_A) for Epoxy coated | -40 to +85 | °C |
| Operating Ambient Temperature Range (T_A) for Phenolic coated | -40 to +125 | °C |
| Storage Temperature Range (T_{STG}) for Epoxy coated | -40 to +125 | °C |
| Storage Temperature Range (T_{STG}) for Phenolic coated | -40 to +150 | °C |
| Temperature Coefficient (αV) of Clamping Voltage (V_C) at Specified Test Current | < 0.01 % | °C |
| Hi-Pot Encapsulation (Isolation Voltage Capability) for Epoxy coated | 2500 | V |
| Hi-Pot Encapsulation (Isolation Voltage Capability) for Phenolic coated | 800 | V |
| Epoxy Coating Insulation Resistance | >1,000 | MΩ |

CAUTION: Stresses above those listed in "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress only rating and operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied.

LV UltraMOV® Series

Radial Leded Varistors

LV UltraMOV® Series Device Ratings and Specifications

| Epoxy Coated Models | | Phenolic Coated Models ² | | Size Disc Dia. (mm) | Max Continuous Voltage | | Varistor Voltage at 1mA | | | Maximum Clamping Voltage | | Max Peak Current (8 x 20µs 1 pulse) | Energy Rating (2ms, 1pulse) | Typical Capacitance f = 1MHz |
|-------------------------|----------|-------------------------------------|----------|---------------------|------------------------|--------------------|-------------------------|----------------------|----------------------|--------------------------|-----------------|-------------------------------------|-----------------------------|------------------------------|
| Part Number (Base part) | Branding | Part Number (Base part) | Branding | | V _{M(AC)RMS} | V _{M(DC)} | V _{NOM Min} | V _{NOM Nom} | V _{NOM Max} | V _C | I _{PK} | I _{TM} | W _{TM} | C |
| | | | | | (V) | (V) | (V) | (V) | (V) | (V) | (A) | (A) | (J) | (pF) |
| V05E11P | P5E11 | V05P11P | P5P11 | 5 | 11 | 14 | 16.2 | 18.0 | 19.8 | 36 | 1 | 500 | 0.8 | 1300 |
| V07E11P | P7E11 | V07P11P | P7P11 | 7 | 11 | 14 | 16.2 | 18.0 | 19.8 | 36 | 2.5 | 1000 | 2.0 | 2900 |
| V10E11P | P10E11 | V10P11P | P10P11 | 10 | 11 | 14 | 16.2 | 18.0 | 19.8 | 36 | 5 | 2000 | 4.2 | 5450 |
| V14E11P | P14E11 | V14P11P | P14P11 | 14 | 11 | 14 | 16.2 | 18.0 | 19.8 | 36 | 10 | 4000 | 8 | 12000 |
| V20E11P | P20E11 | V20P11P | P20P11 | 20 | 11 | 14 | 16.2 | 18.0 | 19.8 | 36 | 20 | 8000 | 25 | 26000 |
| V05E14P | P5E14 | V05P14P | P5P14 | 5 | 14 | 18 | 19.8 | 22.0 | 24.2 | 43 | 1 | 500 | 1 | 1100 |
| V07E14P | P7E14 | V07P14P | P7P14 | 7 | 14 | 18 | 19.8 | 22.0 | 24.2 | 43 | 2.5 | 1000 | 2.2 | 2450 |
| V10E14P | P10E14 | V10P14P | P10P14 | 10 | 14 | 18 | 19.8 | 22.0 | 24.2 | 43 | 5 | 2000 | 5 | 4650 |
| V14E14P | P14E14 | V14P14P | P14P14 | 14 | 14 | 18 | 19.8 | 22.0 | 24.2 | 43 | 10 | 4000 | 10 | 10200 |
| V20E14P | P20E14 | V20P14P | P20P14 | 20 | 14 | 18 | 19.8 | 22.0 | 24.2 | 43 | 20 | 8000 | 28 | 22200 |
| V05E17P | P5E17 | V05P17P | P5P17 | 5 | 17 | 22 | 24.3 | 27.0 | 29.7 | 53 | 1 | 500 | 1.4 | 950 |
| V07E17P | P7E17 | V07P17P | P7P17 | 7 | 17 | 22 | 24.3 | 27.0 | 29.7 | 53 | 2.5 | 1000 | 2.8 | 2100 |
| V10E17P | P10E17 | V10P17P | P10P17 | 10 | 17 | 22 | 24.3 | 27.0 | 29.7 | 53 | 5 | 2000 | 6.5 | 3900 |
| V14E17P | P14E17 | V14P17P | P14P17 | 14 | 17 | 22 | 24.3 | 27.0 | 29.7 | 53 | 10 | 4000 | 13 | 8700 |
| V20E17P | P20E17 | V20P17P | P20P17 | 20 | 17 | 22 | 24.3 | 27.0 | 29.7 | 53 | 20 | 8000 | 35 | 18750 |
| V05E20P | P5E20 | V05P20P | P5P20 | 5 | 20 | 26 | 29.7 | 33.0 | 36.3 | 65 | 1 | 500 | 2 | 850 |
| V07E20P | P7E20 | V07P20P | P7P20 | 7 | 20 | 26 | 29.7 | 33.0 | 36.3 | 65 | 2.5 | 1000 | 4.2 | 1750 |
| V10E20P | P10E20 | V10P20P | P10P20 | 10 | 20 | 26 | 29.7 | 33.0 | 36.3 | 65 | 5 | 2000 | 10 | 3400 |
| V14E20P | P14E20 | V14P20P | P14P20 | 14 | 20 | 26 | 29.7 | 33.0 | 36.3 | 65 | 10 | 4000 | 20 | 7500 |
| V20E20P | P20E20 | V20P20P | P20P20 | 20 | 20 | 26 | 29.7 | 33.0 | 36.3 | 65 | 20 | 8000 | 58 | 15000 |
| V05E23P | P5E23 | V05P23P | P5P23 | 5 | 23 | 28 | 32.4 | 36.0 | 39.6 | 71 | 1 | 500 | 2.2 | 800 |
| V07E23P | P7E23 | V07P23P | P7P23 | 7 | 23 | 28 | 32.4 | 36.0 | 39.6 | 71 | 2.5 | 1000 | 5.0 | 1650 |
| V10E23P | P10E23 | V10P23P | P10P23 | 10 | 23 | 28 | 32.4 | 36.0 | 39.6 | 71 | 5 | 2000 | 12 | 3200 |
| V14E23P | P14E23 | V14P23P | P14P23 | 14 | 23 | 28 | 32.4 | 36.0 | 39.6 | 71 | 10 | 4000 | 23 | 7000 |
| V20E23P | P20E23 | V20P23P | P20P23 | 20 | 23 | 28 | 32.4 | 36.0 | 39.6 | 71 | 20 | 8000 | 70 | 14000 |
| V05E25P | P5E25 | V05P25P | P5P25 | 5 | 25 | 31 | 35.1 | 39.0 | 42.9 | 77 | 1 | 500 | 2.5 | 750 |
| V07E25P | P7E25 | V07P25P | P7P25 | 7 | 25 | 31 | 35.1 | 39.0 | 42.9 | 77 | 2.5 | 1000 | 5.5 | 1500 |
| V10E25P | P10E25 | V10P25P | P10P25 | 10 | 25 | 31 | 35.1 | 39.0 | 42.9 | 77 | 5 | 2000 | 13 | 2900 |
| V14E25P | P14E25 | V14P25P | P14P25 | 14 | 25 | 31 | 35.1 | 39.0 | 42.9 | 77 | 10 | 4000 | 25 | 6200 |
| V20E25P | P20E25 | V20P25P | P20P25 | 20 | 25 | 31 | 35.1 | 39.0 | 42.9 | 77 | 20 | 8000 | 77 | 13500 |
| V05E30P | P5E30 | V05P30P | P5P30 | 5 | 30 | 38 | 42.3 | 47.0 | 51.7 | 93 | 1 | 500 | 3.1 | 650 |
| V07E30P | P7E30 | V07P30P | P7P30 | 7 | 30 | 38 | 42.3 | 47.0 | 51.7 | 93 | 2.5 | 1000 | 7 | 1350 |
| V10E30P | P10E30 | V10P30P | P10P30 | 10 | 30 | 38 | 42.3 | 47.0 | 51.7 | 93 | 5 | 2000 | 15.5 | 2550 |
| V14E30P | P14E30 | V14P30P | P14P30 | 14 | 30 | 38 | 42.3 | 47.0 | 51.7 | 93 | 10 | 4000 | 32 | 5550 |
| V20E30P | P20E30 | V20P30P | P20P30 | 20 | 30 | 38 | 42.3 | 47.0 | 51.7 | 93 | 20 | 8000 | 90 | 12000 |
| V05E35P | P5E35 | V05P35P | P5P35 | 5 | 35 | 45 | 50.4 | 56.0 | 61.6 | 93 | 1 | 500 | 4 | 550 |
| V07E35P | P7E35 | V07P35P | P7P35 | 7 | 35 | 45 | 50.4 | 56.0 | 61.6 | 110 | 2.5 | 1000 | 9 | 1200 |
| V10E35P | P10E35 | V10P35P | P10P35 | 10 | 35 | 45 | 50.4 | 56.0 | 61.6 | 110 | 5 | 2000 | 20 | 2200 |
| V14E35P | P14E35 | V14P35P | P14P35 | 14 | 35 | 45 | 50.4 | 56.0 | 61.6 | 110 | 10 | 4000 | 40 | 5000 |
| V20E35P | P20E35 | V20P35P | P20P35 | 20 | 35 | 45 | 50.4 | 56.0 | 61.6 | 110 | 20 | 8000 | 115 | 10500 |
| V05E40P | P5E40 | V05P40P | P5P40 | 5 | 40 | 56 | 61.2 | 68.0 | 74.8 | 135 | 1 | 500 | 5 | 500 |
| V07E40P | P7E40 | V07P40P | P7P40 | 7 | 40 | 56 | 61.2 | 68.0 | 74.8 | 135 | 2.5 | 1000 | 11 | 1000 |
| V10E40P | P10E40 | V10P40P | P10P40 | 10 | 40 | 56 | 61.2 | 68.0 | 74.8 | 135 | 5 | 2000 | 25 | 1850 |
| V14E40P | P14E40 | V14P40P | P14P40 | 14 | 40 | 56 | 61.2 | 68.0 | 74.8 | 135 | 10 | 4000 | 50 | 4000 |
| V20E40P | P20E40 | V20P40P | P20P40 | 20 | 40 | 56 | 61.2 | 68.0 | 74.8 | 135 | 20 | 8000 | 140 | 8500 |

Notes:

1. Average power dissipation of transients not to exceed 0.2W, 0.25W, 0.4W, 0.6W or 1W for model sizes 5mm, 7mm, 10mm, 14mm, and 20mm, respectively.
2. 10mm, 14mm and 20mm devices are UL recognized with 800V isolation voltage rating.

LV UltraMOV® Series

Radial Leaded Varistors

| Epoxy Coated Models | | Phenolic Coated Models ² | | Size Disc Dia. (mm) | Max Continuous Voltage | | Varistor Voltage at 1mA | | | Maximum Clamping Voltage | | Max Peak Current (8 x 20µs 1 pulse) | Energy Rating (2ms, 1pulse) | Typical Capacitance f = 1MHz |
|-------------------------|----------|-------------------------------------|----------|---------------------|------------------------|--------------------|-------------------------|----------------------|----------------------|--------------------------|-----------------|-------------------------------------|-----------------------------|------------------------------|
| Part Number (Base part) | Branding | Part Number (Base part) | Branding | | V _{M(AC)RMS} | V _{M(DC)} | V _{NOM Min} | V _{NOM Nom} | V _{NOM Max} | V _C | I _{PK} | I _{TM} | W _{TM} | C |
| | | | | | (V) | (V) | (V) | (V) | (V) | (V) | (A) | (A) | (J) | (pF) |
| V05E50P | P5E50 | V05P50P | P5P50 | 5 | 50 | 65 | 73.8 | 82 | 90.2 | 135 | 5 | 800 | 5 | 350 |
| V07E50P | P7E50 | V07P50P | P7P50 | 7 | 50 | 65 | 73.8 | 82 | 90.2 | 135 | 10 | 1750 | 10 | 800 |
| V10E50P | P10E50 | V10P50P | P10P50 | 10 | 50 | 65 | 73.8 | 82 | 90.2 | 135 | 25 | 3500 | 20 | 1400 |
| V14E50P | P14E50 | V14P50P | P14P50 | 14 | 50 | 65 | 73.8 | 82 | 90.2 | 145 | 50 | 6500 | 40 | 3000 |
| V20E50P | P20E50 | V20P50P | P20P50 | 20 | 50 | 65 | 73.8 | 82 | 90.2 | 145 | 100 | 10000 | 80 | 6000 |
| V05E60P | P5E60 | V05P60P | P5P60 | 5 | 60 | 85 | 90 | 100 | 110 | 165 | 5 | 800 | 6 | 310 |
| V07E60P | P7E60 | V07P60P | P7P60 | 7 | 60 | 85 | 90 | 100 | 110 | 165 | 10 | 1750 | 12 | 700 |
| V10E60P | P10E60 | V10P60P | P10P60 | 10 | 60 | 85 | 90 | 100 | 110 | 165 | 25 | 3500 | 24 | 1200 |
| V14E60P | P14E60 | V14P60P | P14P60 | 14 | 60 | 85 | 90 | 100 | 110 | 175 | 50 | 6500 | 50 | 2500 |
| V20E60P | P20E60 | V20P60P | P20P60 | 20 | 60 | 85 | 90 | 100 | 110 | 175 | 100 | 10000 | 100 | 5200 |
| V05E75P | P5E75 | V05P75P | P5P75 | 5 | 75 | 100 | 108 | 120 | 132 | 205 | 5 | 800 | 7 | 260 |
| V07E75P | P7E75 | V07P75P | P7P75 | 7 | 75 | 100 | 108 | 120 | 132 | 205 | 10 | 1750 | 14 | 600 |
| V10E75P | P10E75 | V10P75P | P10P75 | 10 | 75 | 100 | 108 | 120 | 132 | 200 | 25 | 3500 | 29 | 1100 |
| V14E75P | P14E75 | V14P75P | P14P75 | 14 | 75 | 100 | 108 | 120 | 132 | 210 | 50 | 6500 | 60 | 2300 |
| V20E75P | P20E75 | V20P75P | P20P75 | 20 | 75 | 100 | 108 | 120 | 132 | 210 | 100 | 10000 | 120 | 4800 |
| V05E95P | P5E95 | V05P95P | P5P95 | 5 | 95 | 125 | 135 | 150 | 165 | 250 | 5 | 800 | 9 | 200 |
| V07E95P | P7E95 | V07P95P | P7P95 | 7 | 95 | 125 | 135 | 150 | 165 | 250 | 10 | 1750 | 18 | 520 |
| V10E95P | P10E95 | V10P95P | P10P95 | 10 | 95 | 125 | 135 | 150 | 165 | 250 | 25 | 3500 | 36 | 800 |
| V14E95P | P14E95 | V14P95P | P14P95 | 14 | 95 | 125 | 135 | 150 | 165 | 250 | 50 | 6500 | 75 | 1700 |
| V20E95P | P20E95 | V20P95P | P20P95 | 20 | 95 | 125 | 135 | 150 | 165 | 250 | 100 | 10000 | 150 | 3700 |

Notes:

1. Average power dissipation of transients not to exceed 0.2W, 0.25W, 0.4W, 0.6W or 1W for model sizes 5mm, 7mm, 10mm, 14mm, and 20mm respectively.
2. 10mm, 14mm and 20mm devices are UL recognized and TUV certified with 800V isolation voltage rating.

LV UltraMOV® Series

Radial Leaded Varistors

Current Energy and Power Dissipation Ratings

Figure 1A - Power Derating for Epoxy Coated

For applications exceeding 85°C ambient temperature, the peak surge current and energy ratings must be reduced as shown below.

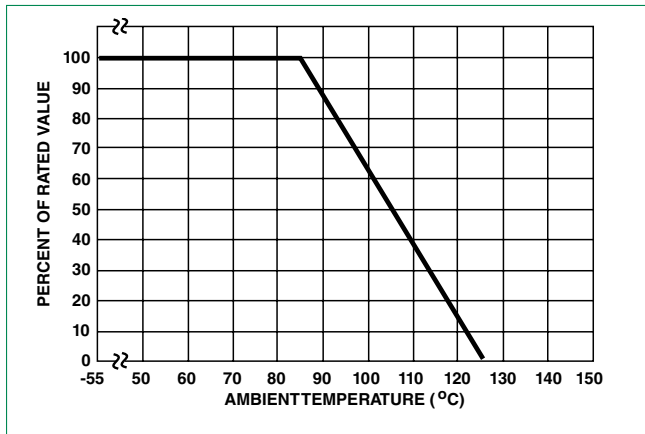
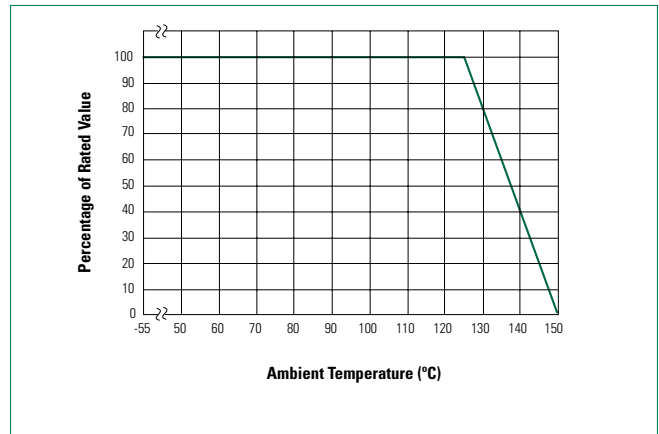


Figure 1B - Power Derating for Phenolic Coated

For applications exceeding 125°C ambient temperature, the peak surge current and energy ratings must be reduced as shown below.



Peak Pulse Current Test Waveform for Clamping Voltage

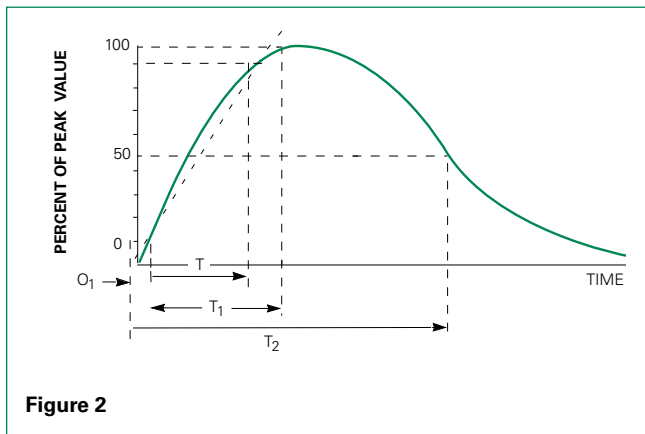


Figure 2

- O_1 = Virtual Origin of Wave
- T = Time from 10% to 90% of Peak
- T_1 = Rise Time = $1.25 \times T$
- T_2 = Decay Time

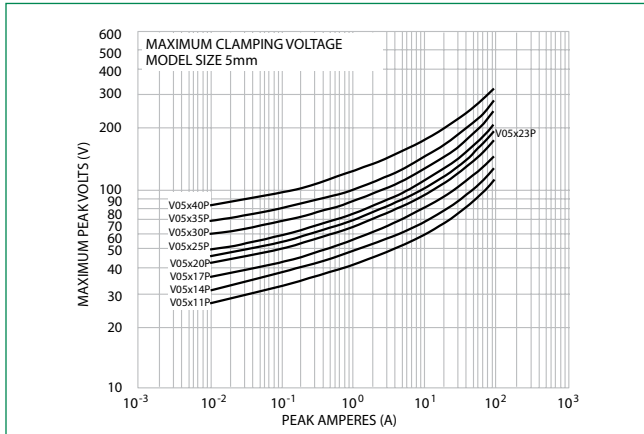
Example - For an 8/20 μ s Current Waveform:

- 8μ s = T_1 = Rise Time
- 20μ s = T_2 = Decay Time

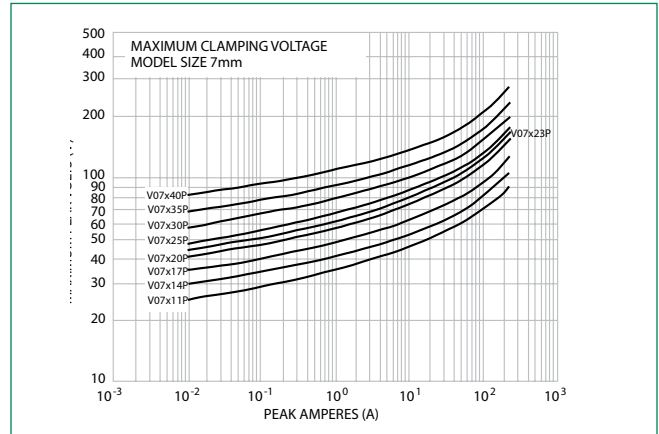
LV UltraMOV® Series

Radial Leded Varistors

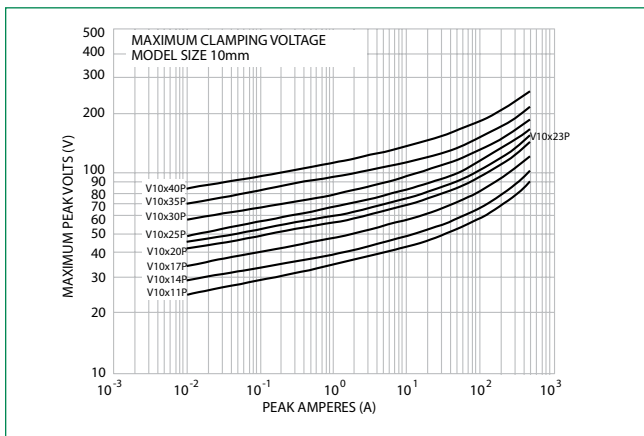
Maximum Clamping Voltage for 5mm Parts
V05x11P - V05x40P



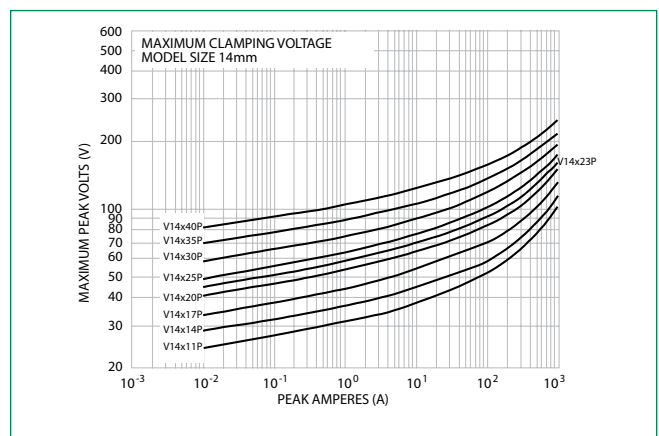
Maximum Clamping Voltage for 7mm Parts
V07x11P - V07x40P



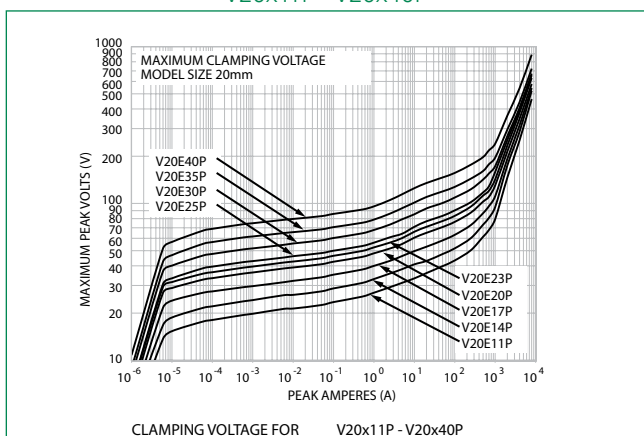
Maximum Clamping Voltage for 10mm Parts
V10x11P - V10x40P



Maximum Clamping Voltage for 14mm Parts
V14x11P - V14x40P



Maximum Clamping Voltage for 20mm Parts
V20x11P - V20x40P



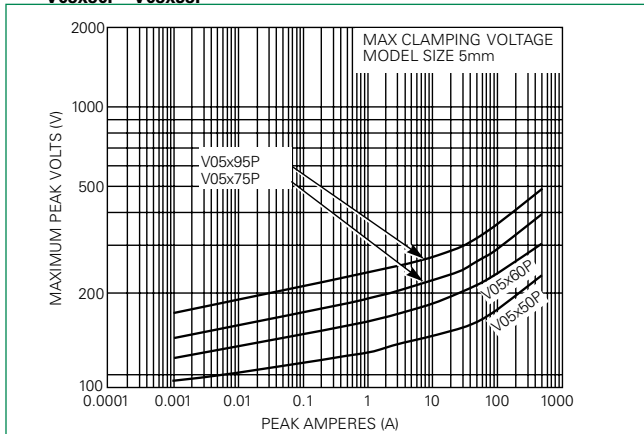
CLAMPING VOLTAGE FOR V20x11P - V20x40P

LV UltraMOV® Series

Radial Leded Varistors

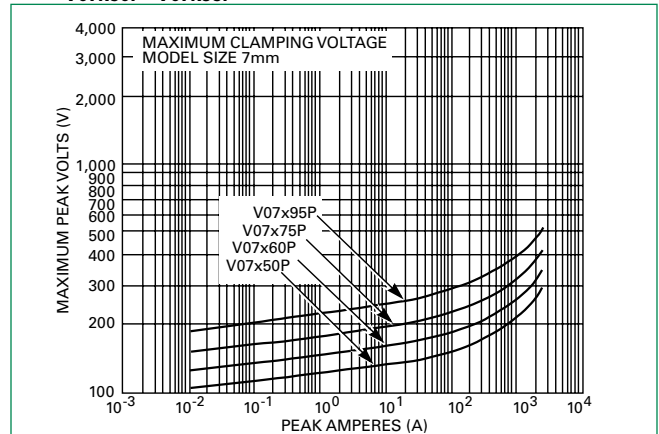
Maximum Clamping Voltage for 5mm Parts

V05x50P - V05x95P



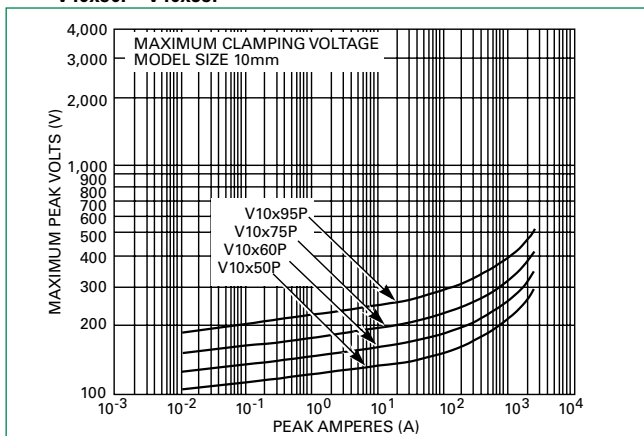
Maximum Clamping Voltage for 7mm Parts

V07x50P - V07x95P



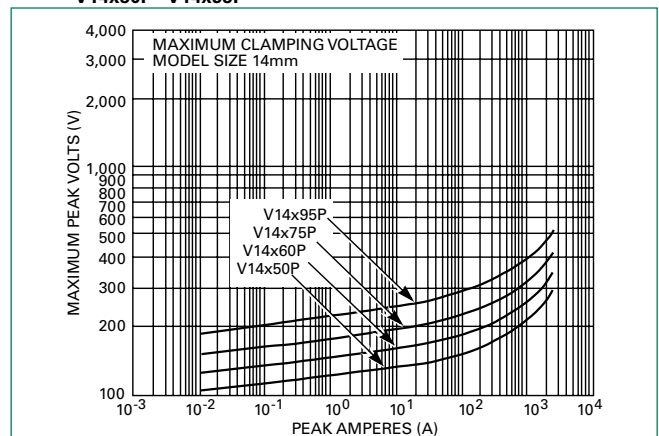
Maximum Clamping Voltage for 10mm Parts

V10x50P - V10x95P



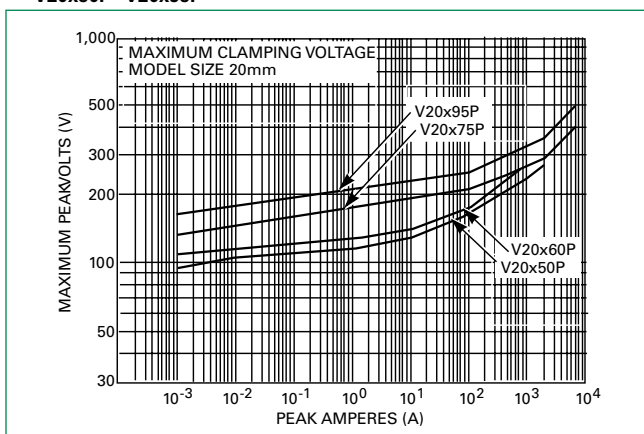
Maximum Clamping Voltage for 14mm Parts

V14x50P - V14x95P



Maximum Clamping Voltage for 20mm Parts

V20x50P - V20x95P

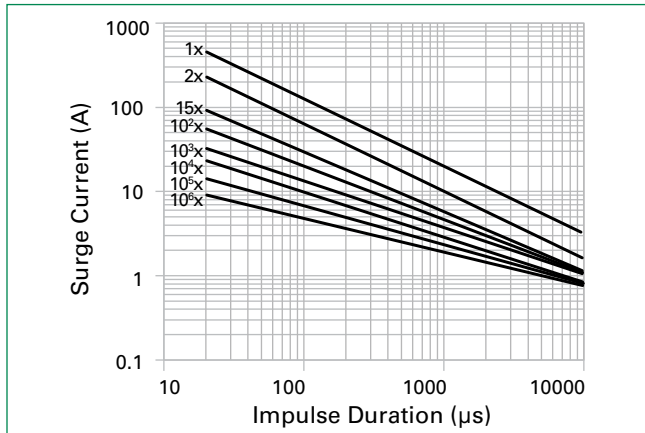


LV UltraMOV® Series

Radial Leded Varistors

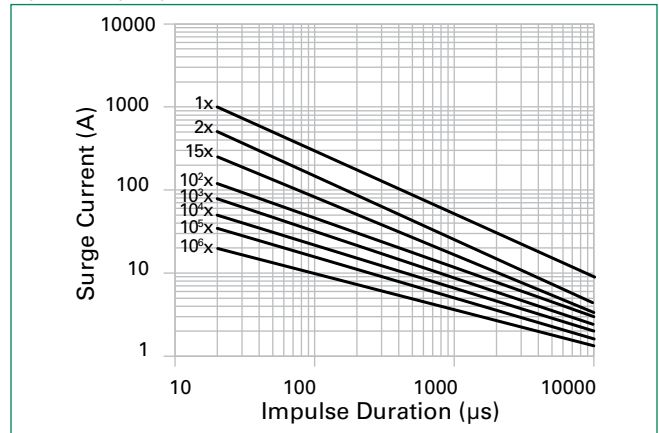
Repetitive Surge Capability for 5mm Parts

V05x11P - V05x40P



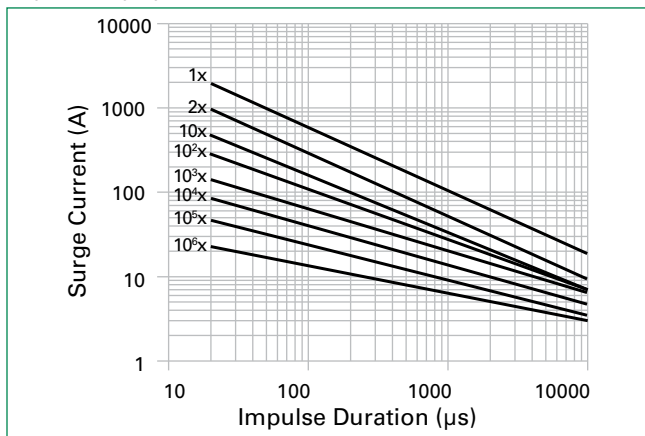
Repetitive Surge Capability for 7mm Parts

V07x11P - V07x40P



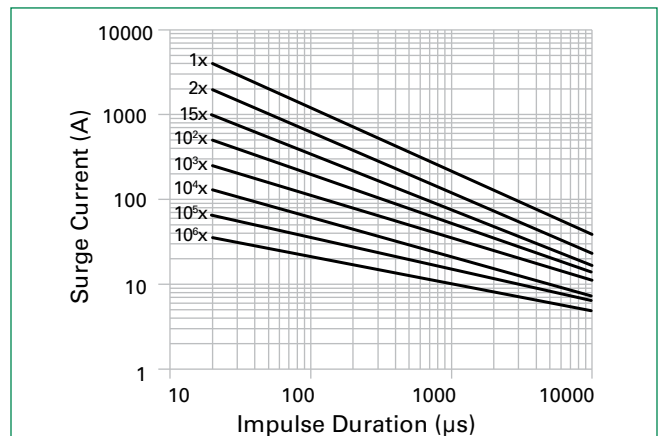
Repetitive Surge Capability for 10mm Parts

V10x11P - V10x40P



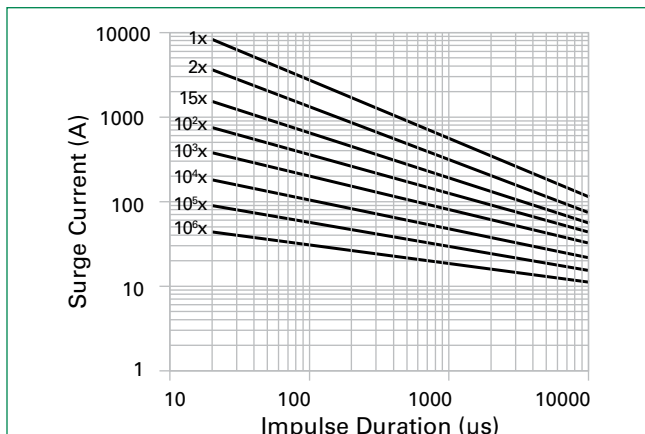
Repetitive Surge Capability for 14mm Parts

V14x11P - V14x40P



Repetitive Surge Capability for 20mm Parts

V20x11P - V20x40P



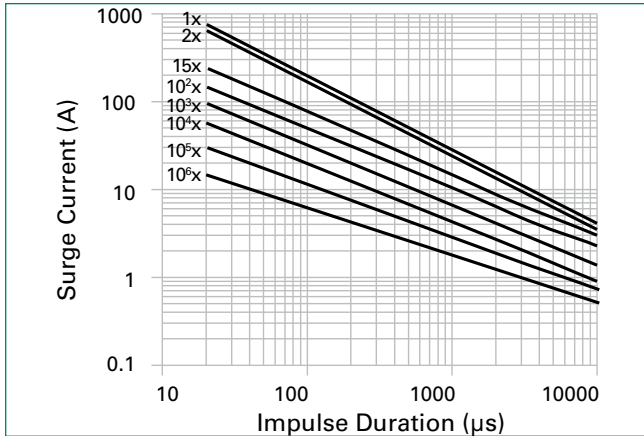
Note: If pulse ratings are exceeded, a shift of V_{NDCI} (at specified current) of more than +/-10% could result. This type of shift, which normally results in a decrease of V_{NDCI} , may result in the device not meeting the original published specifications, but does not prevent the device from continuing to function, and to provide ample protection.

LV UltraMOV® Series

Radial Leded Varistors

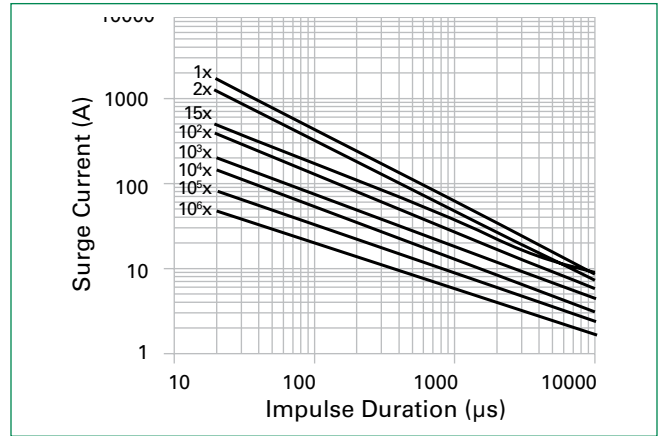
Repetitive Surge Capability for 5mm Parts

V05x50P - V05x95P



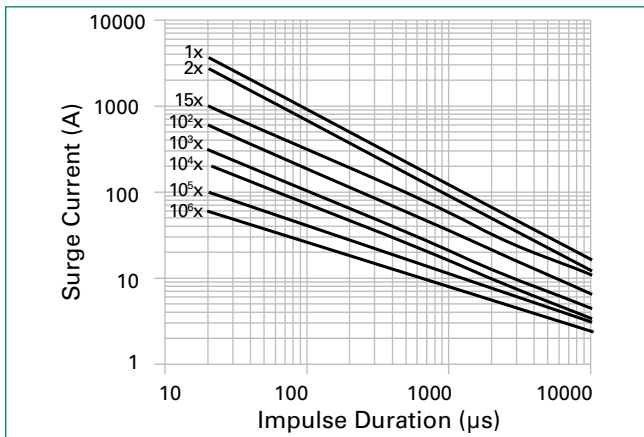
Repetitive Surge Capability for 7mm Parts

V07x50P - V07x95P



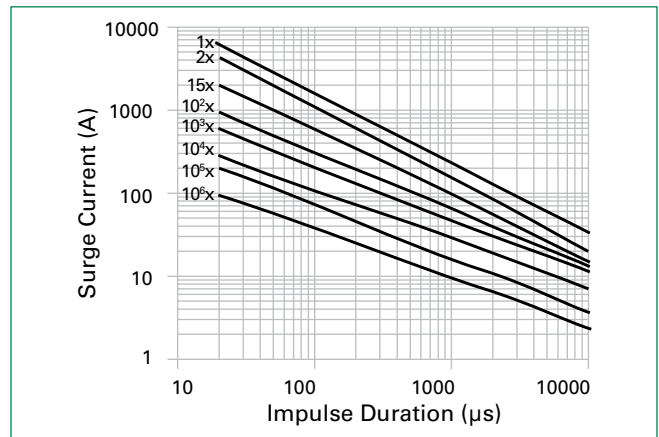
Repetitive Surge Capability for 10mm Parts

V10x50P - V10x95P



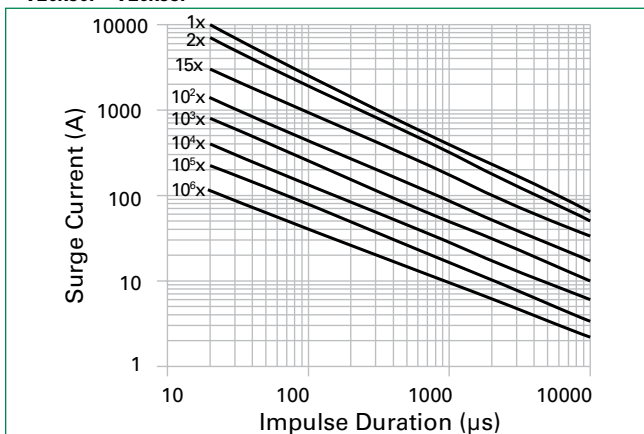
Repetitive Surge Capability for 14mm Parts

V14x50P - V14x95P



Repetitive Surge Capability for 20mm Parts

V20x50P - V20x95P

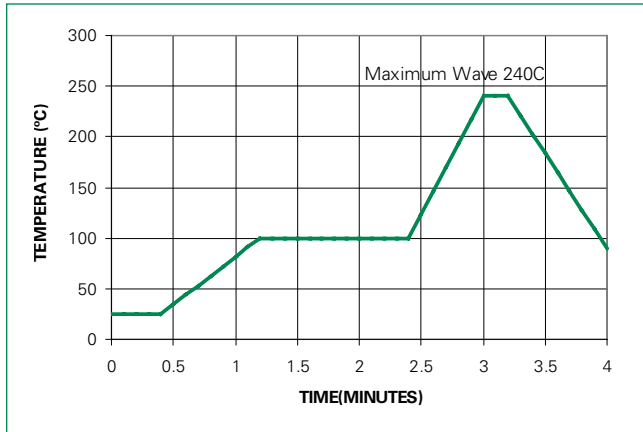


LV UltraMOV® Series

Radial Leaded Varistors

Wave Solder Profile

Non Lead-free Profile



Lead-free Profile



Physical Specifications

| | |
|----------------------------------|---|
| Lead Material | Copper Clad Steel Wire |
| Soldering Characteristics | Solderability per MIL-STD-202, Method 208 |
| Insulating Material | Cured, flame retardant epoxy polymer meets UL94V-0 requirements |
| Device Labeling | Marked with LF, voltage and date code |

Environmental Specifications

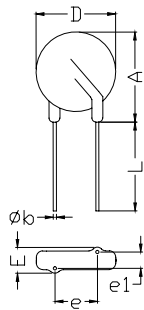
| | |
|-----------------------------|--|
| Humidity Aging | +85°C, 85% RH, 1000 hours +/-10% typical voltage change |
| Thermal Shock | +85°C to -40°C 10 times +/-10% typical voltage change |
| Solvent Resistance | MIL-STD-202, Method 215 |
| Moisture Sensitivity | Level 1, J-STD-020 |

LV UltraMOV® Series

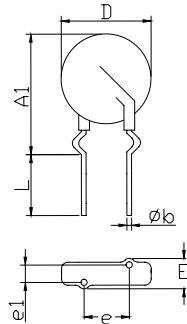
Radial Leded Varistors

Product Dimensions (mm)

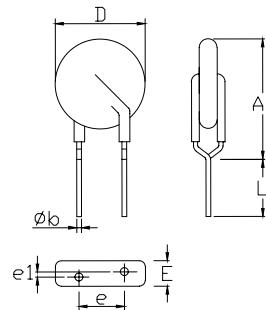
Straight Lead



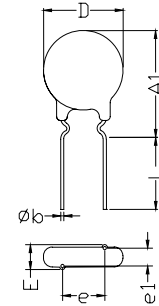
Outer Crimp Lead



In-Line (Under Crimp) Lead



Inner Crimp Lead



| Dimension | V _{RMS} Voltage Model | 5mm Size | | 7mm Size | | 10mm Size | | 14mm Size | | 20mm Size | |
|-------------------|--------------------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | Min. mm (in) | Max. mm (in) | Min. mm (in) | Max. mm (in) | Min. mm (in) | Max. mm (in) | Min. mm (in) | Max. mm (in) | Min. mm (in) | Max. mm (in) |
| A | All | - | 10 (0.394) | - | 12 (0.472) | - | 16 (0.630) | - | 20 (0.787) | - | 26.5 (1.043) |
| A1 | All | - | 13 (0.512) | - | 15 (0.591) | - | 19.5 (0.768) | - | 22.5 (0.886) | - | 29 (1.142) |
| ØD | All | - | 7 (0.276) | - | 9 (0.354) | - | 12.5 (0.492) | - | 17 (0.669) | - | 23 (0.906) |
| e | All | 4 (0.157) | 6 (0.236) | 4 (0.157) | 6 (0.236) | 6.5 (0.256) | 8.5 (0.335) | 6.5 (0.256) | 8.5 (0.335) | 6.5 (0.256) | 8.5 (0.335) |
| e ₁ | 11 - 30 | 1 (0.039) | 3 (0.118) | 1 (0.039) | 3 (0.118) | 1 (0.039) | 3 (0.118) | 1 (0.039) | 3 (0.118) | 1 (0.039) | 3 (0.118) |
| | 35 - 95 | 1.5 (0.059) | 3.5 (0.138) | 1.5 (0.059) | 3.5 (0.138) | 1.5 (0.059) | 3.5 (0.138) | 1.5 (0.059) | 3.5 (0.138) | 1.5 (0.059) | 3.5 (0.138) |
| E | 11 - 30 | - | 5.0 (0.197) | - | 5.0 (0.197) | - | 5.0 (0.197) | - | 5.0 (0.197) | - | 5.0 (0.197) |
| | 35 - 95 | - | 5.6 (0.220) | - | 5.6 (0.220) | - | 5.6 (0.220) | - | 5.6 (0.220) | - | 5.6 (0.220) |
| øb | All | 0.585 (0.023) | 0.685 (0.027) | 0.585 (0.023) | 0.685 (0.027) | 0.76 (0.030) | 0.86 (0.034) | 0.76 (0.030) | 0.86 (0.034) | 0.76 (0.030) | 0.86 (0.034) |
| L | All | 25.4 (1.00) | - | 25.4 (1.00) | - | 25.4 (1.00) | - | 25.4 (1.00) | - | 25.4 (1.00) | - |
| L _{TRIM} | All | 2.41 (0.095) | 4.69 (0.185) | 2.41 (0.095) | 4.69 (0.185) | 2.41 (0.095) | 4.69 (0.185) | 2.41 (0.095) | 4.69 (0.185) | 2.41 (0.095) | 4.69 (0.185) |

LV UltraMOV® Series

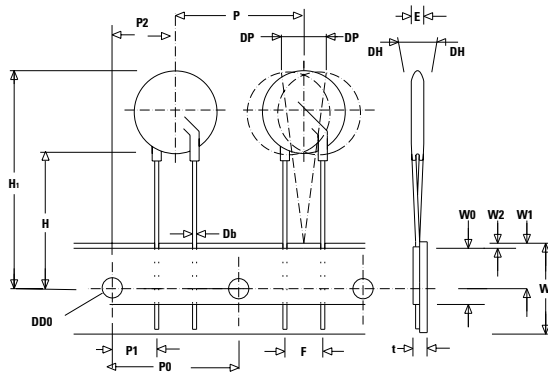
Radial Ledged Varistors

Tape and Reel Specifications

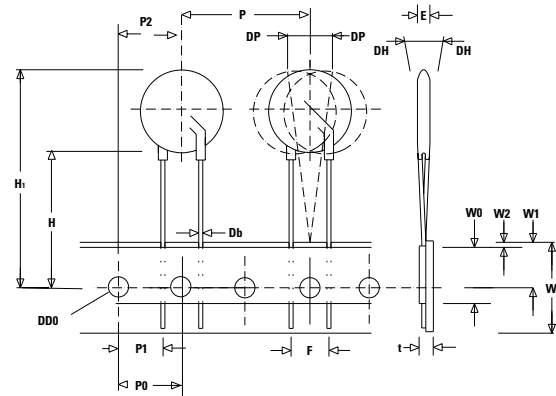
5 and 7mm Devices

10, 14, and 20mm Devices

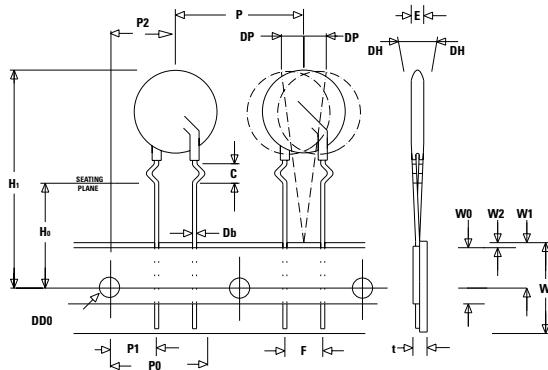
STRAIGHT LEADS "L1"



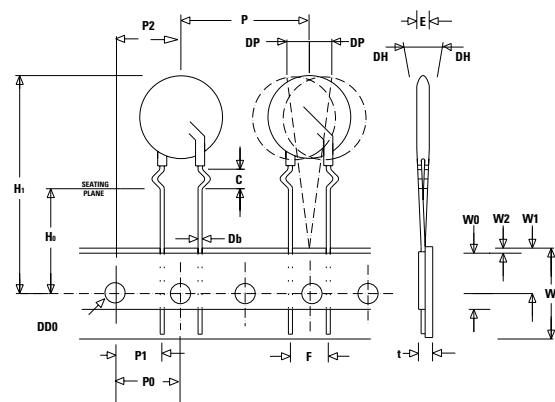
STRAIGHT LEADS "L1"



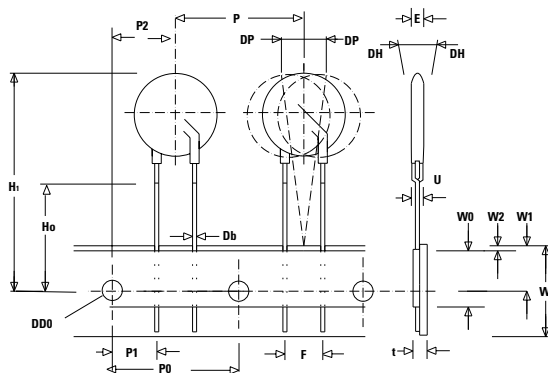
CRIMPED LEADS "L2"



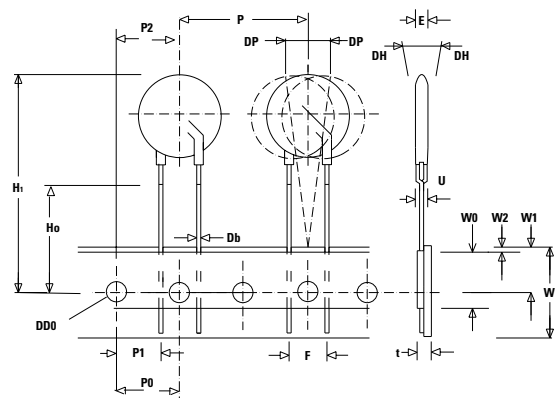
CRIMPED LEADS "L2"



UNDER CRIMPED / IN-LINE LEADS "L3"



UNDER CRIMPED / IN-LINE LEADS "L3"



Refer to next page for dimension measurement specifics.