

### Description:

The PV Series is a line of surface mount plastic-encapsulated varistors designed to protect electronic equipment against high voltage surges in the low and medium voltage region. They offer direct SMD equivalents to 5mm and 7mm leaded disc varistors. The thermoplastic encapsulation is non-flammable according to the standard defined by UL94V-0. Terminations are tinned copper sheet.



PV varistors are designed exclusively for surface mounting and are available in two model sizes. These transient voltage suppressors cover operating voltages (Vrms) from 11V to 300V and feature maximum surge currents from 100A to 1,200A.

### Features:

- AC operating voltage (Vrms) from 11V to 300V
- DC operating voltage (Vdc) from 14V to 385V
- Insensitive to water cleaning procedures and to humidity according to the climate category 55/125/56
- +85°C continuous operating temperature
- Non-flammable thermoplastic encapsulation case according to standard UL94V-0
- 2 model sizes available: 3225 and 4032
- Dimensional and weight savings on board
- Easily solderable tinned copper terminations
- UL, CAC, CEDD approved

### General Technical Data

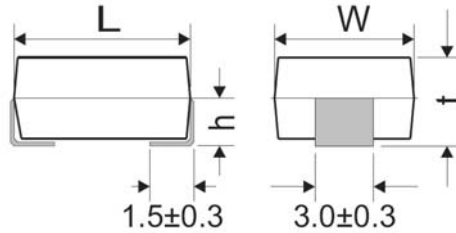
|                                           |                 |                                |
|-------------------------------------------|-----------------|--------------------------------|
| Climatic Category                         | 55 / 125 / 56   | In accordance with IEC 60068-1 |
| Operating Temperature                     | -40°C to +85°C  | In accordance with CECC 42 000 |
| Storage Temperature Range                 | -40°C to +125°C |                                |
| Threshold Voltage Temperature Coefficient | ≤0.05% / °C     |                                |
| Response Time                             | < 5 nS          |                                |

### Standard Packaging Options / Quantities

| Series | Voltage Range (Vrms) | Chip Size |       |
|--------|----------------------|-----------|-------|
|        |                      | 3225      | 4032  |
| PV     | 11 - 150             | 1,500     | 1,000 |
|        | 175 - 300            | 1,000     | 1,000 |

### How to Order

|                |                                                        |      |           |         |           |      |           |               |    |
|----------------|--------------------------------------------------------|------|-----------|---------|-----------|------|-----------|---------------|----|
| 1              | 2                                                      | 3    | 4         | 5       | 6         | 7    | 8         | 9             | 10 |
| P              | V                                                      | 4    | 0         | K       | 3         | 2    | 2         | 5             | T  |
| Product Series |                                                        | Vrms | Tolerance |         | Chip Size |      | Packaging |               |    |
| PV             | Low & Medium Voltage Plastic Encapsulated SMD Varistor | 40   | Code      | Tol     | 3225      | 4032 | Code      | Description   |    |
|                |                                                        |      | K         | 10%     |           |      | T         | Tape and Reel |    |
|                |                                                        |      | S         | Special |           |      |           |               |    |



Device Ratings and Dimensions

| Part Number   | V <sub>RMS</sub><br>(volts) | V <sub>DC</sub><br>(volts) | V <sub>n</sub><br>@ 1mA<br>(volts) | V <sub>C</sub><br>(volts) | I <sub>C</sub><br>(amps) | W <sub>MAX</sub><br>(joules) | P <sub>MAX</sub><br>(watts) | I <sub>max</sub><br>8/20 μs<br>(amps) | C <sub>TYP</sub><br>@ 1kHz<br>(pF) | h<br>± 0.3<br>(mm) | L<br>± 0.5<br>(mm) | W<br>± 0.4<br>(mm) | t<br>± 0.3<br>(mm) |
|---------------|-----------------------------|----------------------------|------------------------------------|---------------------------|--------------------------|------------------------------|-----------------------------|---------------------------------------|------------------------------------|--------------------|--------------------|--------------------|--------------------|
| PV 11 K 3225  | 11                          | 14                         | 18                                 | 36                        | 2.5                      | 0.6                          | 0.01                        | 100                                   | 1,600                              | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 11 K 4032  | 11                          | 14                         | 18                                 | 36                        | 5.0                      | 1.1                          | 0.02                        | 250                                   | 3,100                              | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 14 K 3225  | 14                          | 18                         | 22                                 | 43                        | 2.5                      | 0.7                          | 0.01                        | 100                                   | 1,300                              | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 14 K 4032  | 14                          | 18                         | 22                                 | 43                        | 5.0                      | 1.3                          | 0.02                        | 250                                   | 2,500                              | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 17 K 3225  | 17                          | 22                         | 27                                 | 53                        | 2.5                      | 0.9                          | 0.01                        | 100                                   | 1,050                              | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 17 K 4032  | 17                          | 22                         | 27                                 | 53                        | 5.0                      | 1.6                          | 0.02                        | 250                                   | 1,900                              | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 20 K 3225  | 20                          | 26                         | 33                                 | 65                        | 2.5                      | 1.1                          | 0.01                        | 100                                   | 750                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 20 K 4032  | 20                          | 26                         | 33                                 | 65                        | 5.0                      | 2.0                          | 0.02                        | 250                                   | 1,500                              | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 25 K 3225  | 25                          | 31                         | 39                                 | 77                        | 2.5                      | 1.2                          | 0.01                        | 100                                   | 660                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 25 K 4032  | 25                          | 31                         | 39                                 | 77                        | 5.0                      | 2.4                          | 0.02                        | 250                                   | 1,260                              | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 30 K 3225  | 30                          | 38                         | 47                                 | 93                        | 2.5                      | 1.5                          | 0.01                        | 100                                   | 580                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 30 K 4032  | 30                          | 38                         | 47                                 | 93                        | 5.0                      | 2.8                          | 0.02                        | 250                                   | 1,050                              | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 35 K 3225  | 35                          | 45                         | 56                                 | 110                       | 2.5                      | 1.8                          | 0.01                        | 100                                   | 460                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 35 K 4032  | 35                          | 45                         | 56                                 | 110                       | 5.0                      | 3.4                          | 0.02                        | 250                                   | 850                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 40 K 3225  | 40                          | 56                         | 68                                 | 135                       | 2.5                      | 2.2                          | 0.01                        | 100                                   | 400                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 40 K 4032  | 40                          | 56                         | 68                                 | 135                       | 5.0                      | 4.1                          | 0.02                        | 250                                   | 720                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 50 K 3225  | 50                          | 65                         | 82                                 | 135                       | 5.0                      | 2.5                          | 0.10                        | 400                                   | 390                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 50 K 4032  | 50                          | 65                         | 82                                 | 135                       | 10.0                     | 6.5                          | 0.25                        | 1,200                                 | 820                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 60 K 3225  | 60                          | 85                         | 100                                | 165                       | 5.0                      | 3.0                          | 0.10                        | 400                                   | 330                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 60 K 4032  | 60                          | 85                         | 100                                | 165                       | 10.0                     | 7.0                          | 0.25                        | 1,200                                 | 680                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 75 K 3225  | 75                          | 100                        | 120                                | 200                       | 5.0                      | 4.0                          | 0.10                        | 400                                   | 270                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 75 K 4032  | 75                          | 100                        | 120                                | 200                       | 10.0                     | 9.0                          | 0.25                        | 1,200                                 | 550                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 95 K 3225  | 95                          | 125                        | 150                                | 250                       | 5.0                      | 6.0                          | 0.10                        | 400                                   | 220                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 95 K 4032  | 95                          | 125                        | 150                                | 250                       | 10.0                     | 11.0                         | 0.25                        | 1,200                                 | 440                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 115 K 3225 | 115                         | 150                        | 180                                | 300                       | 5.0                      | 6.5                          | 0.10                        | 400                                   | 180                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 115 K 4032 | 115                         | 150                        | 180                                | 300                       | 10.0                     | 13.0                         | 0.25                        | 1,200                                 | 360                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 130 K 3225 | 130                         | 170                        | 205                                | 340                       | 5.0                      | 7.0                          | 0.10                        | 400                                   | 160                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 130 K 4032 | 130                         | 170                        | 205                                | 340                       | 10.0                     | 15.0                         | 0.25                        | 1,200                                 | 320                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 140 K 3225 | 140                         | 180                        | 220                                | 360                       | 5.0                      | 7.5                          | 0.10                        | 400                                   | 150                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 140 K 4032 | 140                         | 180                        | 220                                | 360                       | 10.0                     | 18.0                         | 0.25                        | 1,200                                 | 300                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 150 K 3225 | 150                         | 200                        | 240                                | 395                       | 5.0                      | 9.0                          | 0.10                        | 400                                   | 140                                | 1.70               | 8.0                | 6.3                | 3.4                |
| PV 150 K 4032 | 150                         | 200                        | 240                                | 395                       | 10.0                     | 18.5                         | 0.25                        | 1,200                                 | 280                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 175 K 3225 | 175                         | 225                        | 270                                | 455                       | 5.0                      | 9.5                          | 0.10                        | 400                                   | 120                                | 2.30               | 8.0                | 6.3                | 4.7                |
| PV 175 K 4032 | 175                         | 225                        | 270                                | 455                       | 10.0                     | 21.0                         | 0.25                        | 1,200                                 | 250                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 230 K 3225 | 230                         | 300                        | 360                                | 595                       | 5.0                      | 10.0                         | 0.10                        | 400                                   | 95                                 | 2.30               | 8.0                | 6.3                | 4.7                |
| PV 230 K 4032 | 230                         | 300                        | 360                                | 595                       | 10.0                     | 23.0                         | 0.25                        | 1,200                                 | 190                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 250 K 3225 | 250                         | 320                        | 390                                | 650                       | 5.0                      | 11.0                         | 0.10                        | 400                                   | 80                                 | 2.30               | 8.0                | 6.3                | 4.7                |
| PV 250 K 4032 | 250                         | 320                        | 390                                | 650                       | 10.0                     | 25.0                         | 0.25                        | 1,200                                 | 180                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 275 K 3225 | 275                         | 350                        | 430                                | 710                       | 5.0                      | 13.0                         | 0.10                        | 400                                   | 75                                 | 2.30               | 8.0                | 6.3                | 4.7                |
| PV 275 K 4032 | 275                         | 350                        | 430                                | 710                       | 10.0                     | 29.0                         | 0.25                        | 1,200                                 | 160                                | 2.30               | 10.0               | 8.0                | 4.7                |
| PV 300 K 3225 | 300                         | 385                        | 470                                | 775                       | 5.0                      | 15.0                         | 0.10                        | 400                                   | 70                                 | 2.30               | 8.0                | 6.3                | 4.7                |
| PV 300 K 4032 | 300                         | 385                        | 470                                | 775                       | 10.0                     | 30.0                         | 0.25                        | 1,200                                 | 150                                | 2.30               | 10.0               | 8.0                | 4.7                |