

### Description:

The CV Series of transient surge suppressors is disc-shaped varistors that can be operated continuously in low and medium voltage electronic circuits, as well as across AC power lines.

Due to their radial lead construction, these components require very little mounting space. They are available in five model sizes from 5 mm to 20 mm and feature a wide range of AC operating voltages from 50V to 680V.



### Features:

- AC operating voltage (Vrms) from 50V to 680V
- DC operating voltage (Vdc) from 65V to 895V
- Broad range of current and energy handling capability
- For RMS voltages  $\leq 40$  V see ZV leaded series
- 5 model sizes available from 5 mm to 20 mm
- UL1449, 3<sup>rd</sup> Ed.
- +85°C continuous operating temperature
- RoHS compliant, REACH compliant, lead free, and halogen free

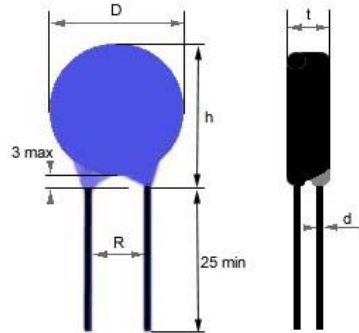
### General Technical Data

|                                           |                 |
|-------------------------------------------|-----------------|
| Climatic Category                         | 40 / 85 / 56    |
| Operating Ambient Temperature             | -40°C to +85°C  |
| Storage Temperature Range                 | -40°C to +125°C |
| Threshold Voltage Temperature Coefficient | < +0.05 % / °C  |
| Isolation Voltage Capability              | > 2.5 kV        |
| Response Time                             | < 25 ns         |
| Insulation Resistance                     | > 1 Gohm        |

### Standard Packaging Options

| Series | Range (Vrms) | Disc Diameter |      |      |      |      |      |      |      |      |      |
|--------|--------------|---------------|------|------|------|------|------|------|------|------|------|
|        |              | 5mm           |      | 7mm  |      | 10mm |      | 14mm |      | 20mm |      |
|        |              | Reel          | Bulk | Reel | Bulk | Reel | Bulk | Reel | Bulk | Reel | Bulk |
| CV     | 50 - 75      | 1500          | 1500 | 1500 | 1500 | 1300 | 600  | 700  | 500  | 600  | 300  |
|        | 95           | 1500          | 1500 | 1500 | 1000 | 1300 | 600  | 600  | 500  | 600  | 300  |
|        | 115 - 130    | 1300          | 1500 | 1300 | 1000 | 1000 | 500  | 600  | 500  | 500  | 300  |
|        | 140 - 150    | 1200          | 1500 | 1200 | 1000 | 1000 | 500  | 600  | 500  | 500  | 300  |
|        | 175          | 1200          | 1500 | 1200 | 1000 | 1000 | 500  | 500  | 500  | 500  | 300  |
|        | 230          | 1000          | 1000 | 1000 | 1000 | 1000 | 500  | 500  | 300  | 400  | 300  |
|        | 250 - 275    | 1000          | 1000 | 1000 | 1000 | 800  | 500  | 400  | 300  | 400  | 300  |
|        | 300          | 900           | 1000 | 900  | 1000 | 800  | 500  | 400  | 300  | 400  | 200  |
|        | 320          | N/A           | N/A  | N/A  | N/A  | 800  | 500  | 400  | 300  | 300  | 200  |
|        | 385          | N/A           | N/A  | N/A  | N/A  | 700  | 400  | 400  | 300  | 300  | 200  |
|        | 420          | N/A           | N/A  | N/A  | N/A  | 700  | 400  | 300  | 300  | 300  | 200  |
|        | 460 - 550    | N/A           | N/A  | N/A  | N/A  | 600  | 400  | 300  | 300  | 300  | 200  |
|        | 625          | N/A           | N/A  | N/A  | N/A  | 600  | 400  | 300  | 300  | 250  | 200  |

### Device Ratings and Dimensions



| Part Number | $V_{RMS}$<br>(volts) | $V_{DC}$<br>(volts) | $V_N$<br>(1 mA)<br>(volts) | $V_C$<br>(volts) | $I_C$<br>(8/20 $\mu$ Sec)<br>(amps) | $W_{MAX}$<br>(10/1000 $\mu$ Sec)<br>(joules) | $P_{MAX}$<br>(watts) | $I_{MAX}$<br>(8/20 $\mu$ Sec)<br>(amps) | $C_{TYP}$<br>(@ 1 kHz)<br>(pF) | $D_{max}$<br>(mm) | $t_{max}$<br>(mm) | $R$<br>(mm) | $d$<br>(mm) | $h_{max}$<br>(mm) |
|-------------|----------------------|---------------------|----------------------------|------------------|-------------------------------------|----------------------------------------------|----------------------|-----------------------------------------|--------------------------------|-------------------|-------------------|-------------|-------------|-------------------|
| CV50K05     | 50                   | 65                  | 82                         | 135              | 5                                   | 2.7                                          | 0.1                  | 400                                     | 350                            | 7                 | 3.5               | 5           | 0.6         | 9.5               |
| CV50K07     | 50                   | 65                  | 82                         | 135              | 10                                  | 6.8                                          | 0.25                 | 1,200                                   | 820                            | 9                 | 3.5               | 5           | 0.6         | 11.5              |
| CV50K10     | 50                   | 65                  | 82                         | 135              | 25                                  | 17                                           | 0.4                  | 2,500                                   | 1,400                          | 12.5              | 4.1               | 7.5         | 0.8         | 15                |
| CV50K14     | 50                   | 65                  | 82                         | 135              | 50                                  | 35                                           | 0.6                  | 4,500                                   | 2,600                          | 16.5              | 4.1               | 7.5         | 0.8         | 20                |
| CV50K20     | 50                   | 65                  | 82                         | 135              | 100                                 | 75                                           | 1                    | 6,500                                   | 5,000                          | 22.5              | 4.5               | 10          | 1           | 26                |
| CV60K05     | 60                   | 85                  | 100                        | 165              | 5                                   | 3                                            | 0.1                  | 400                                     | 300                            | 7                 | 3.5               | 5           | 0.6         | 9.5               |
| CV60K07     | 60                   | 85                  | 100                        | 165              | 10                                  | 7                                            | 0.25                 | 1,200                                   | 680                            | 9                 | 3.5               | 5           | 0.6         | 11.5              |
| CV60K10     | 60                   | 85                  | 100                        | 165              | 25                                  | 16                                           | 0.4                  | 2,500                                   | 1,200                          | 12.5              | 4.1               | 7.5         | 0.8         | 15                |
| CV60K14     | 60                   | 85                  | 100                        | 165              | 50                                  | 34                                           | 0.6                  | 4,500                                   | 2,200                          | 16.5              | 4.2               | 7.5         | 0.8         | 20                |
| CV60K20     | 60                   | 85                  | 100                        | 165              | 100                                 | 71                                           | 1                    | 6,500                                   | 4,100                          | 22.5              | 4.6               | 10          | 1           | 26                |
| CV75K05     | 75                   | 100                 | 120                        | 200              | 5                                   | 4                                            | 0.1                  | 400                                     | 250                            | 7                 | 3.6               | 5           | 0.6         | 9.5               |
| CV75K07     | 75                   | 100                 | 120                        | 200              | 10                                  | 9                                            | 0.25                 | 1,200                                   | 550                            | 9                 | 3.6               | 5           | 0.6         | 11.5              |
| CV75K10     | 75                   | 100                 | 120                        | 200              | 25                                  | 21                                           | 0.4                  | 2,500                                   | 950                            | 12.5              | 4.2               | 7.5         | 0.8         | 15                |
| CV75K14     | 75                   | 100                 | 120                        | 200              | 50                                  | 41                                           | 0.6                  | 4,500                                   | 1,800                          | 16.5              | 4.2               | 7.5         | 0.8         | 20                |
| CV75K20     | 75                   | 100                 | 120                        | 200              | 100                                 | 81                                           | 1                    | 6,500                                   | 3,300                          | 22.5              | 4.6               | 10          | 1           | 26                |
| CV95K05     | 95                   | 125                 | 150                        | 250              | 5                                   | 6                                            | 0.1                  | 400                                     | 200                            | 7                 | 3.8               | 5           | 0.6         | 9.5               |
| CV95K07     | 95                   | 125                 | 150                        | 250              | 10                                  | 11                                           | 0.25                 | 1,200                                   | 440                            | 9                 | 3.8               | 5           | 0.6         | 11.5              |
| CV95K10     | 95                   | 125                 | 150                        | 250              | 25                                  | 25                                           | 0.4                  | 2,500                                   | 750                            | 12.5              | 4.3               | 7.5         | 0.8         | 15                |
| CV95K14     | 95                   | 125                 | 150                        | 250              | 50                                  | 51                                           | 0.6                  | 4,500                                   | 1,400                          | 16.5              | 4.3               | 7.5         | 0.8         | 20                |
| CV95K20     | 95                   | 125                 | 150                        | 250              | 100                                 | 106                                          | 1                    | 6,500                                   | 2,600                          | 22.5              | 4.6               | 10          | 1           | 26                |
| CV115K05    | 115                  | 150                 | 180                        | 300              | 5                                   | 6                                            | 0.1                  | 400                                     | 170                            | 7                 | 4.0               | 5           | 0.6         | 9.5               |
| CV115K07    | 115                  | 150                 | 180                        | 300              | 10                                  | 13                                           | 0.25                 | 1,200                                   | 360                            | 9                 | 4.0               | 5           | 0.6         | 11.5              |
| CV115K10    | 115                  | 150                 | 180                        | 300              | 25                                  | 30                                           | 0.4                  | 2,500                                   | 650                            | 12.5              | 4.3               | 7.5         | 0.8         | 15                |
| CV115K14    | 115                  | 150                 | 180                        | 300              | 50                                  | 62                                           | 0.6                  | 4,500                                   | 1,200                          | 16.5              | 4.4               | 7.5         | 0.8         | 20                |
| CV115K20    | 115                  | 150                 | 180                        | 300              | 100                                 | 118                                          | 1                    | 6,500                                   | 2,100                          | 22.5              | 4.8               | 10          | 1           | 26                |
| CV130K05    | 130                  | 170                 | 205                        | 340              | 5                                   | 7                                            | 0.1                  | 400                                     | 150                            | 7                 | 4.0               | 5           | 0.6         | 9.5               |
| CV130K07    | 130                  | 170                 | 205                        | 340              | 10                                  | 15                                           | 0.25                 | 1,200                                   | 320                            | 9                 | 4.0               | 5           | 0.6         | 11.5              |
| CV130K10    | 130                  | 170                 | 205                        | 340              | 25                                  | 34                                           | 0.4                  | 2,500                                   | 580                            | 12.5              | 4.5               | 7.5         | 0.8         | 15                |
| CV130K14    | 130                  | 170                 | 205                        | 340              | 50                                  | 68                                           | 0.6                  | 4,500                                   | 1,050                          | 16.5              | 4.6               | 7.5         | 0.8         | 20                |
| CV130K20    | 130                  | 170                 | 205                        | 340              | 100                                 | 142                                          | 1                    | 6,500                                   | 1,900                          | 22.5              | 5.0               | 10          | 1           | 26                |
| CV140K05    | 140                  | 180                 | 220                        | 360              | 5                                   | 7                                            | 0.1                  | 400                                     | 140                            | 7                 | 4.1               | 5           | 0.6         | 9.5               |
| CV140K07    | 140                  | 180                 | 220                        | 360              | 10                                  | 18                                           | 0.25                 | 1,200                                   | 300                            | 9                 | 4.1               | 5           | 0.6         | 11.5              |
| CV140K10    | 140                  | 180                 | 220                        | 360              | 25                                  | 37                                           | 0.4                  | 2,500                                   | 540                            | 12.5              | 4.6               | 7.5         | 0.8         | 15                |
| CV140K14    | 140                  | 180                 | 220                        | 360              | 50                                  | 75                                           | 0.6                  | 4,500                                   | 950                            | 16.5              | 4.7               | 7.5         | 0.8         | 20                |
| CV140K20    | 140                  | 180                 | 220                        | 360              | 100                                 | 157                                          | 1                    | 6,500                                   | 1,700                          | 22.5              | 5.1               | 10          | 1           | 26                |
| CV150K05    | 150                  | 200                 | 240                        | 395              | 5                                   | 9                                            | 0.1                  | 400                                     | 130                            | 7                 | 4.3               | 5           | 0.6         | 9.5               |
| CV150K07    | 150                  | 200                 | 240                        | 395              | 10                                  | 18                                           | 0.25                 | 1,200                                   | 280                            | 9                 | 4.3               | 5           | 0.6         | 11.5              |
| CV150K10    | 150                  | 200                 | 240                        | 395              | 25                                  | 41                                           | 0.4                  | 2,500                                   | 510                            | 12.5              | 4.6               | 7.5         | 0.8         | 15                |
| CV150K14    | 150                  | 200                 | 240                        | 395              | 50                                  | 81                                           | 0.6                  | 4,500                                   | 900                            | 16.5              | 4.8               | 7.5         | 0.8         | 20                |
| CV150K20    | 150                  | 200                 | 240                        | 395              | 100                                 | 170                                          | 1                    | 6,500                                   | 1,550                          | 22.5              | 5.2               | 10          | 1           | 26                |

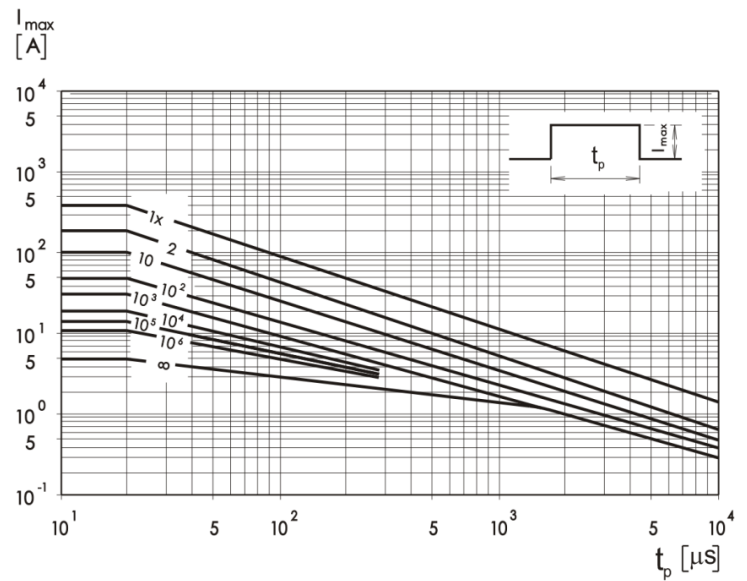
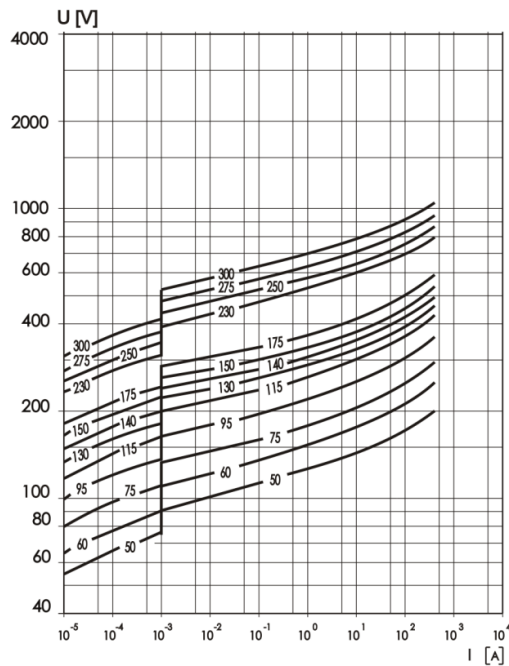
## Device Ratings and Dimensions

| Part Number | V <sub>RMS</sub><br>(volts) | V <sub>DC</sub><br>(volts) | V <sub>N</sub><br>(1 mA)<br>(volts) | V <sub>C</sub><br>(volts) | I <sub>C</sub><br>(8/20 uSec)<br>(amps) | W <sub>MAX</sub><br>(10/1000 uSec)<br>(joules) | P <sub>MAX</sub><br>(watts) | I <sub>MAX</sub><br>(8/20 uSec)<br>(amps) | C <sub>TYP</sub><br>(@ 1 kHz)<br>(pF) | D <sub>max</sub><br>(mm) | t <sub>max</sub><br>(mm) | R<br>(mm) | d<br>(mm) | h <sub>max</sub><br>(mm) |
|-------------|-----------------------------|----------------------------|-------------------------------------|---------------------------|-----------------------------------------|------------------------------------------------|-----------------------------|-------------------------------------------|---------------------------------------|--------------------------|--------------------------|-----------|-----------|--------------------------|
| CV175K05    | 175                         | 225                        | 270                                 | 455                       | 5                                       | 9.5                                            | 0.1                         | 400                                       | 120                                   | 7                        | 4.8                      | 5         | 0.6       | 9.5                      |
| CV175K07    | 175                         | 225                        | 270                                 | 455                       | 10                                      | 21                                             | 0.25                        | 1200                                      | 250                                   | 9                        | 4.8                      | 5         | 0.6       | 11.5                     |
| CV175K10    | 175                         | 225                        | 270                                 | 455                       | 25                                      | 46                                             | 0.4                         | 2500                                      | 440                                   | 12.5                     | 4.9                      | 7.5       | 0.8       | 15                       |
| CV175K14    | 175                         | 225                        | 270                                 | 455                       | 50                                      | 95                                             | 0.6                         | 4500                                      | 800                                   | 16.5                     | 4.9                      | 7.5       | 0.8       | 20                       |
| CV175K20    | 175                         | 225                        | 270                                 | 455                       | 100                                     | 193                                            | 1                           | 6500                                      | 1400                                  | 22.5                     | 5.3                      | 10        | 1         | 26                       |
| CV230K05    | 230                         | 300                        | 360                                 | 595                       | 5                                       | 13                                             | 0.1                         | 400                                       | 90                                    | 7                        | 4.8                      | 5         | 0.6       | 9.5                      |
| CV230K07    | 230                         | 300                        | 360                                 | 595                       | 10                                      | 28                                             | 0.25                        | 1200                                      | 190                                   | 9                        | 4.8                      | 5         | 0.6       | 11.5                     |
| CV230K10    | 230                         | 300                        | 360                                 | 595                       | 25                                      | 62                                             | 0.4                         | 2500                                      | 350                                   | 12.5                     | 5.4                      | 7.5       | 0.8       | 15                       |
| CV230K14    | 230                         | 300                        | 360                                 | 595                       | 50                                      | 126                                            | 0.6                         | 4500                                      | 620                                   | 16.5                     | 5.5                      | 7.5       | 0.8       | 20                       |
| CV230K20    | 230                         | 300                        | 360                                 | 595                       | 100                                     | 258                                            | 1                           | 6500                                      | 1200                                  | 22.5                     | 5.9                      | 10        | 1         | 26                       |
| CV250K05    | 250                         | 320                        | 390                                 | 650                       | 5                                       | 14                                             | 0.1                         | 400                                       | 80                                    | 7                        | 5                        | 5         | 0.6       | 9.5                      |
| CV250K07    | 250                         | 320                        | 390                                 | 650                       | 10                                      | 30                                             | 0.25                        | 1200                                      | 180                                   | 9                        | 5                        | 5         | 0.6       | 11.5                     |
| CV250K10    | 250                         | 320                        | 390                                 | 650                       | 25                                      | 68                                             | 0.4                         | 2500                                      | 320                                   | 12.5                     | 5.6                      | 7.5       | 0.8       | 15                       |
| CV250K14    | 250                         | 320                        | 390                                 | 650                       | 50                                      | 135                                            | 0.6                         | 4500                                      | 580                                   | 16.5                     | 5.7                      | 7.5       | 0.8       | 20                       |
| CV250K20    | 250                         | 320                        | 390                                 | 650                       | 100                                     | 276                                            | 1                           | 6500                                      | 1000                                  | 22.5                     | 6.1                      | 10        | 1         | 26                       |
| CV275K05    | 275                         | 350                        | 430                                 | 710                       | 5                                       | 16                                             | 0.1                         | 400                                       | 70                                    | 7                        | 5.6                      | 5         | 0.6       | 9.5                      |
| CV275K07    | 275                         | 350                        | 430                                 | 710                       | 10                                      | 35                                             | 0.25                        | 1200                                      | 160                                   | 9                        | 5.6                      | 5         | 0.6       | 11.5                     |
| CV275K10    | 275                         | 350                        | 430                                 | 710                       | 25                                      | 78                                             | 0.4                         | 2500                                      | 300                                   | 12.5                     | 6                        | 7.5       | 0.8       | 15                       |
| CV275K14    | 275                         | 350                        | 430                                 | 710                       | 50                                      | 150                                            | 0.6                         | 4500                                      | 530                                   | 16.5                     | 6                        | 7.5       | 0.8       | 20                       |
| CV275K20    | 275                         | 350                        | 430                                 | 710                       | 100                                     | 304                                            | 1                           | 6500                                      | 900                                   | 22.5                     | 6.3                      | 10        | 1         | 26                       |
| CV300K05    | 300                         | 385                        | 470                                 | 775                       | 5                                       | 21                                             | 0.1                         | 400                                       | 65                                    | 7                        | 5.8                      | 5         | 0.6       | 9.5                      |
| CV300K07    | 300                         | 385                        | 470                                 | 775                       | 10                                      | 37                                             | 0.25                        | 1200                                      | 150                                   | 9                        | 5.8                      | 5         | 0.6       | 11.5                     |
| CV300K10    | 300                         | 385                        | 470                                 | 775                       | 25                                      | 82                                             | 0.4                         | 2500                                      | 280                                   | 12.5                     | 6.1                      | 7.5       | 0.8       | 15                       |
| CV300K14    | 300                         | 385                        | 470                                 | 775                       | 50                                      | 169                                            | 0.6                         | 4500                                      | 490                                   | 16.5                     | 6.1                      | 7.5       | 0.8       | 20                       |
| CV300K20    | 300                         | 385                        | 470                                 | 775                       | 100                                     | 350                                            | 1                           | 6500                                      | 850                                   | 22.5                     | 6.6                      | 10        | 1         | 26                       |
| CV320K10    | 320                         | 420                        | 510                                 | 840                       | 25                                      | 91                                             | 0.4                         | 2500                                      | 260                                   | 12.5                     | 6.8                      | 7.5       | 0.8       | 16                       |
| CV320K14    | 320                         | 420                        | 510                                 | 840                       | 50                                      | 184                                            | 0.6                         | 4500                                      | 460                                   | 16.5                     | 6.8                      | 7.5       | 0.8       | 21                       |
| CV320K20    | 320                         | 420                        | 510                                 | 840                       | 100                                     | 388                                            | 1                           | 6500                                      | 800                                   | 22.5                     | 6.8                      | 10        | 1         | 27                       |
| CV385K10    | 385                         | 505                        | 620                                 | 1025                      | 25                                      | 93                                             | 0.4                         | 2500                                      | 240                                   | 12.5                     | 7.4                      | 7.5       | 0.8       | 16                       |
| CV385K14    | 385                         | 505                        | 620                                 | 1025                      | 50                                      | 193                                            | 0.6                         | 4500                                      | 400                                   | 16.5                     | 7.4                      | 7.5       | 0.8       | 21                       |
| CV385K20    | 385                         | 505                        | 620                                 | 1025                      | 100                                     | 396                                            | 1                           | 6500                                      | 700                                   | 22.5                     | 7.5                      | 10        | 1         | 27                       |
| CV420K10    | 420                         | 560                        | 680                                 | 1120                      | 25                                      | 97                                             | 0.4                         | 2500                                      | 220                                   | 12.5                     | 7.3                      | 7.5       | 0.8       | 16                       |
| CV420K14    | 420                         | 560                        | 680                                 | 1120                      | 50                                      | 202                                            | 0.6                         | 4500                                      | 350                                   | 16.5                     | 7.4                      | 7.5       | 0.8       | 21                       |
| CV420K20    | 420                         | 560                        | 680                                 | 1120                      | 100                                     | 418                                            | 1                           | 6500                                      | 650                                   | 22.5                     | 7.8                      | 10        | 1         | 27                       |
| CV460K10    | 460                         | 615                        | 750                                 | 1240                      | 25                                      | 106                                            | 0.4                         | 2500                                      | 200                                   | 12.5                     | 7.8                      | 7.5       | 0.8       | 16                       |
| CV460K14    | 460                         | 615                        | 750                                 | 1240                      | 50                                      | 220                                            | 0.6                         | 4500                                      | 330                                   | 16.5                     | 7.8                      | 7.5       | 0.8       | 21                       |
| CV460K20    | 460                         | 615                        | 750                                 | 1240                      | 100                                     | 460                                            | 1                           | 6500                                      | 550                                   | 22.5                     | 8.2                      | 10        | 1         | 27                       |
| CV510K10    | 510                         | 670                        | 820                                 | 1355                      | 25                                      | 115                                            | 0.4                         | 2500                                      | 180                                   | 12.5                     | 8.2                      | 7.5       | 0.8       | 16                       |
| CV510K14    | 510                         | 670                        | 820                                 | 1355                      | 50                                      | 227                                            | 0.6                         | 4500                                      | 310                                   | 16.5                     | 8.2                      | 7.5       | 0.8       | 21                       |
| CV510K20    | 510                         | 670                        | 820                                 | 1355                      | 100                                     | 478                                            | 1                           | 6500                                      | 500                                   | 22.5                     | 8.7                      | 10        | 1         | 27                       |
| CV550K10    | 550                         | 745                        | 910                                 | 1500                      | 25                                      | 134                                            | 0.4                         | 2500                                      | 170                                   | 12.5                     | 8.8                      | 7.5       | 0.8       | 16                       |
| CV550K14    | 550                         | 745                        | 910                                 | 1500                      | 50                                      | 264                                            | 0.6                         | 4500                                      | 290                                   | 16.5                     | 8.8                      | 7.5       | 0.8       | 21                       |
| CV550K20    | 550                         | 745                        | 910                                 | 1500                      | 100                                     | 515                                            | 1                           | 6500                                      | 450                                   | 22.5                     | 9.2                      | 10        | 1         | 27                       |
| CV575K10    | 575                         | 750                        | 950                                 | 1570                      | 25                                      | 136                                            | 0.4                         | 2500                                      | 165                                   | 12.5                     | 8.9                      | 7.5       | 0.8       | 16                       |
| CV575K14    | 575                         | 750                        | 950                                 | 1570                      | 50                                      | 270                                            | 0.6                         | 4500                                      | 280                                   | 16.5                     | 8.9                      | 7.5       | 0.8       | 21                       |
| CV575K20    | 575                         | 750                        | 950                                 | 1570                      | 100                                     | 525                                            | 1                           | 6500                                      | 460                                   | 22.5                     | 9.4                      | 10        | 1         | 27                       |
| CV625K10    | 625                         | 825                        | 1000                                | 1650                      | 25                                      | 140                                            | 0.4                         | 2500                                      | 160                                   | 12.5                     | 9.1                      | 7.5       | 0.8       | 16                       |
| CV625K14    | 625                         | 825                        | 1000                                | 1650                      | 50                                      | 280                                            | 0.6                         | 4500                                      | 270                                   | 16.5                     | 9.2                      | 7.5       | 0.8       | 21                       |
| CV625K20    | 625                         | 825                        | 1000                                | 1650                      | 100                                     | 565                                            | 1                           | 6500                                      | 400                                   | 22.5                     | 9.7                      | 10        | 1         | 27                       |
| CV680K10    | 680                         | 895                        | 1100                                | 1815                      | 25                                      | 155                                            | 0.4                         | 2500                                      | 150                                   | 12.5                     | 9.7                      | 7.5       | 0.8       | 16                       |
| CV680K14    | 680                         | 895                        | 1100                                | 1815                      | 50                                      | 310                                            | 0.6                         | 4500                                      | 250                                   | 16.5                     | 9.8                      | 7.5       | 0.8       | 21                       |
| CV680K20    | 680                         | 895                        | 1100                                | 1815                      | 100                                     | 620                                            | 1                           | 6500                                      | 350                                   | 22.5                     | 10.2                     | 10        | 1         | 27                       |

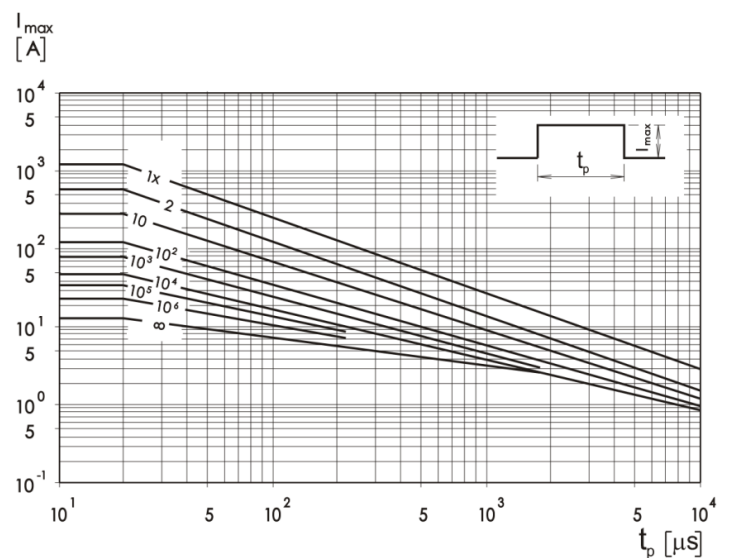
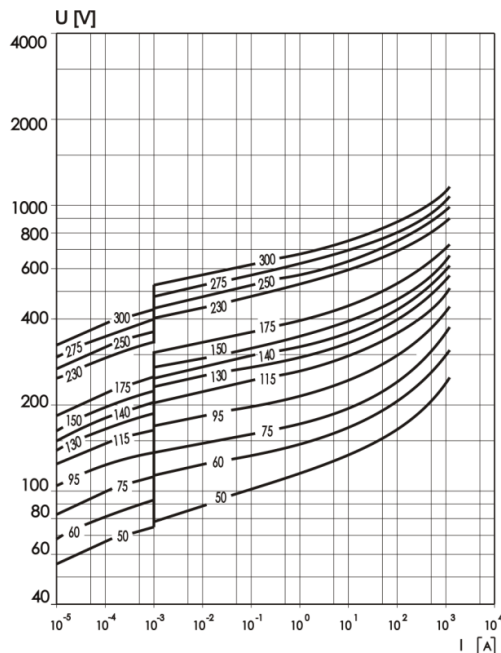
### Pulse Rating Curves

#### Protection Levels

#### CV50K05 to CV300K05



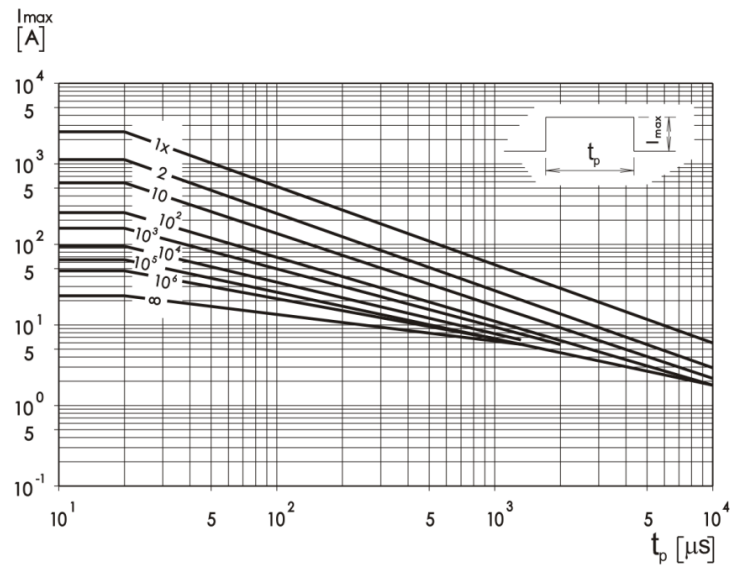
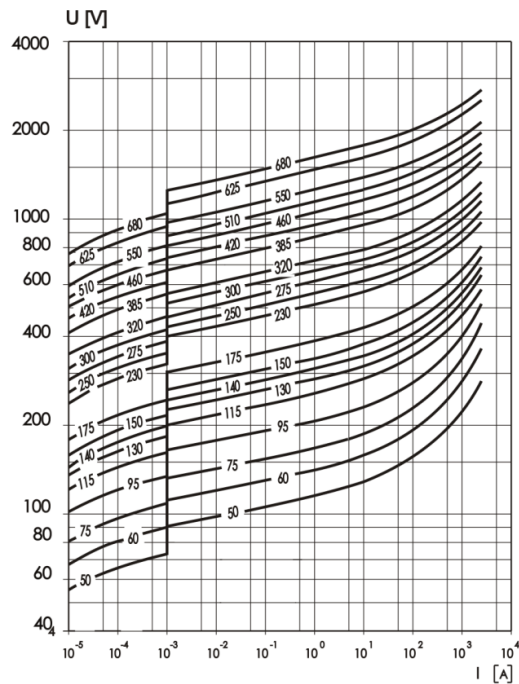
#### CV50K07 to CV300K07



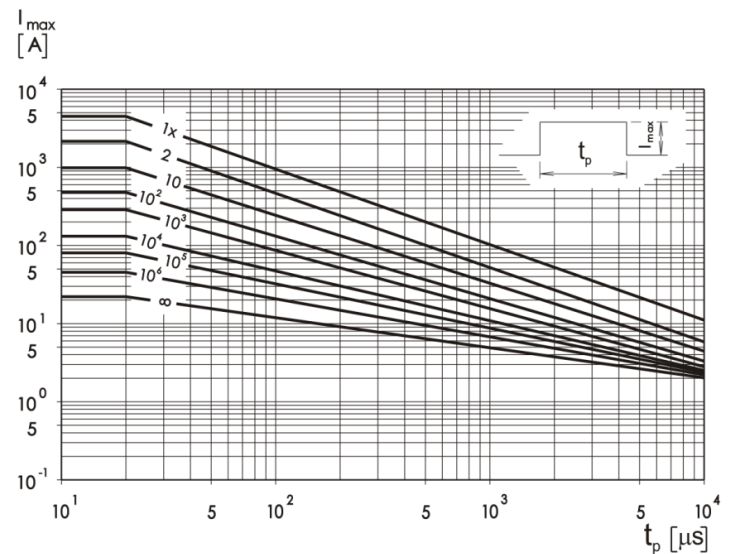
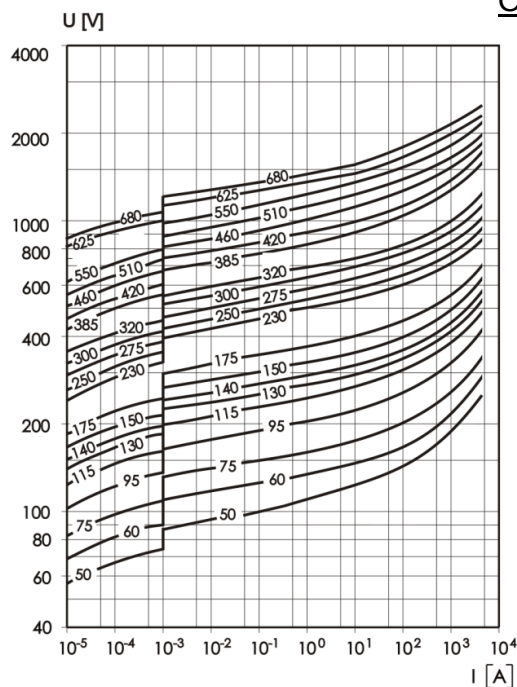
### Pulse Rating Curves

#### Protection Levels

#### CV50K10 to CV680K10



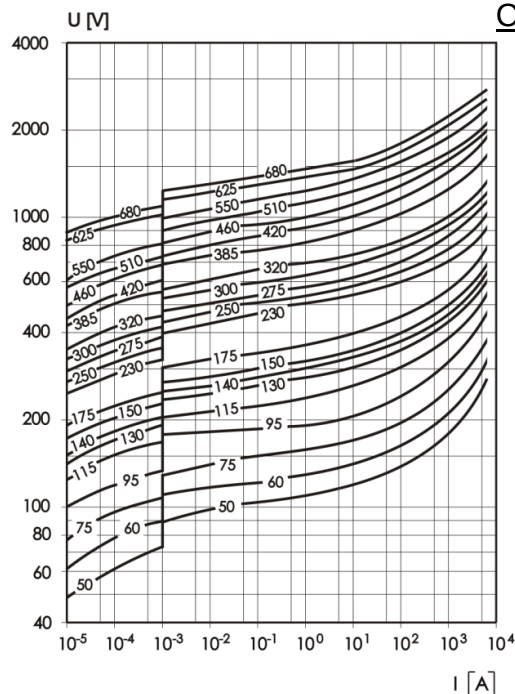
#### CV50K14 to CV680K14



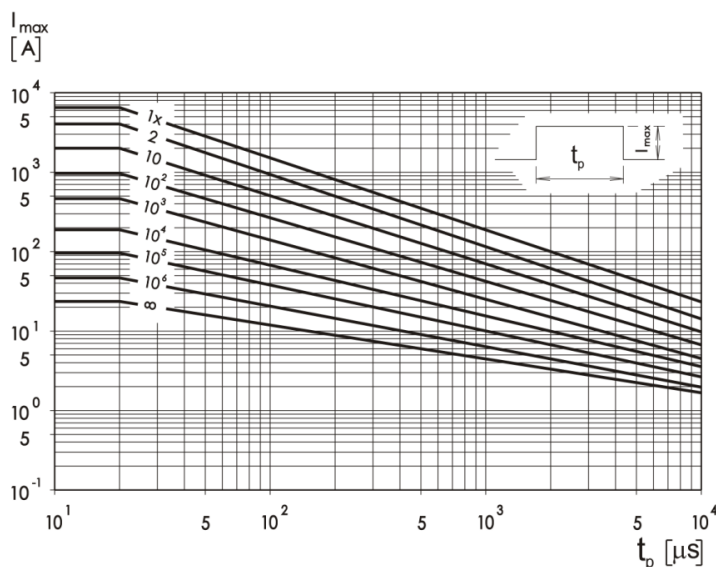


### Pulse Rating Curves

#### Protection Levels



#### CV50K20 to CV680K20



### RoHS Compliance

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union's directive regarding "Restrictions on Hazardous Substances" (RoHS 3). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament as amended by Directive (EU) 2015/863/EU as regards the list of restricted substances.

### RoHS Compliance Status

| Standard Product Series | Description                            | Package / Termination Type | Standard Series RoHS Compliant | Lead-Free Termination Composition | Lead-Free Mfg. Effective Date (Std Product Series) | Lead-Free Effective Date Code (YY/WW) |
|-------------------------|----------------------------------------|----------------------------|--------------------------------|-----------------------------------|----------------------------------------------------|---------------------------------------|
| CV                      | Low and Medium Voltage Leaded Varistor | Leaded                     | YES                            | 100% Matte Sn                     | Always                                             | Always                                |

### “Conflict Metals” Commitment

We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the “conflict region” of the eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

### Compliance to “REACH”

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, “The Registration, Evaluation, Authorization and Restriction of Chemicals”, otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

### Environmental Policy

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.

### How to Order

