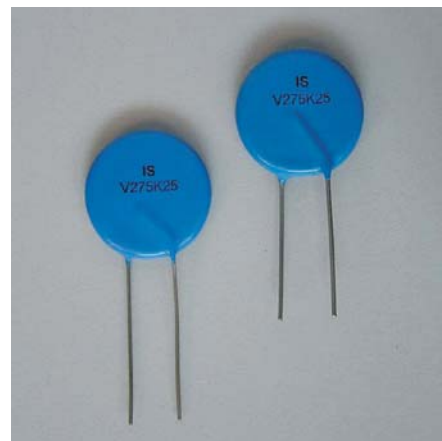


Disc Varistors with Radial Leads - K25 Series

Description

Disc Varistors with Radial Leads are standard metal oxide varistors designed mainly for electronic applications. They offer excellent surge protection for use in PCBs, computers, power supplies, telecommunication network equipment and motor controls. The advantages of the K25 Series Disc Varistors with Radial Leads are: radial leads, structure for PCB mounting, lower price compared to the E Series High Energy Varistor.



Main Features

| | |
|---|----------------|
| Wide Operating Voltage Range V_{RMS} | 130 V to 750 V |
| High Energy Absorption Capability W_{max} (2 ms) | 150 J to 580 J |
| High Peak Current Capability I_{max} (8/20 μ s) | 15000 A |
| Wire Terminals for PCB Mounting | |

General Technical Data

| | | |
|--|-----------------------|----------------------------------|
| Climatic Category | 40/85/56 | in accordance with IEC 60068-1 |
| LCT | -40°C | |
| UCT | +85°C | |
| Damp Heat, Steady State (93% r.h., 40°C) | 56 days | in accordance with IEC 60068-2-3 |
| Operating Temperature | -40 ... +85°C | in accordance with CECC 42 000 |
| Storage Temperature | -40 ... +125°C | |
| Electric Strength | ≥ 2.5 kV | in accordance with CECC 42 000 |
| Insulation Resistance | ≥ 1.0 G Ω | in accordance with CECC 42 000 |
| Response Time | < 25 ns | |

Type Designation

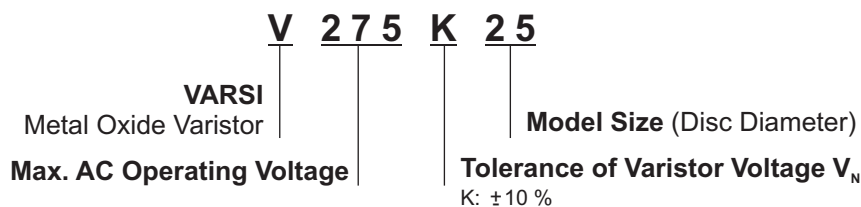
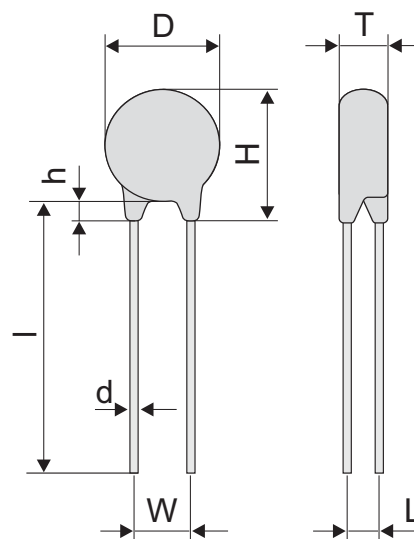


Table of Standard Values

| Part Number | Maximum Ratings TA = +85°C (+185°F) | | | | | Characteristics TA = +25°C (+77°F) | | | | | V - I Characteristic Page | Pulse Rating Page |
|-------------|-------------------------------------|--------------------------------|--|---|---|--|---|--|-------|-----------------------------------|---------------------------|-------------------|
| | Operating Voltage | | Average Power Dissipation P _{max} (W) | Permissible Peak Current (8/20 μs) I _{max} (A) | Energy Absorption (2 ms) W _{max} (J) | Varistor Voltage (1 mA) V _N (V) | Standard Tolerance of V _N ΔV _N (±%) | Maximum Clamping Voltage at Test Current (8/20 μs) | | Typical Capacitance f=1kHz C (pF) | | |
| | RMS Voltage V _{RMS} (V) | DC Voltage V _{DC} (V) | | | | | | V _C (V) | I (A) | | | |
| V130K25 | 130 | 170 | 1.00 | 15000 | 150 | 205 | 10 | 340 | 150.0 | 1900 | 3 | 3 |
| V140K25 | 140 | 180 | 1.00 | 15000 | 155 | 220 | 10 | 360 | 150.0 | 1750 | 3 | 3 |
| V150K25 | 150 | 200 | 1.00 | 15000 | 160 | 240 | 10 | 395 | 150.0 | 1650 | 3 | 3 |
| V175K25 | 175 | 225 | 1.00 | 15000 | 170 | 270 | 10 | 455 | 150.0 | 1400 | 3 | 3 |
| V210K25 | 210 | 270 | 1.00 | 15000 | 180 | 330 | 10 | 540 | 150.0 | 1300 | 3 | 3 |
| V230K25 | 230 | 300 | 1.00 | 15000 | 190 | 360 | 10 | 595 | 150.0 | 1100 | 3 | 3 |
| V250K25 | 250 | 320 | 1.00 | 15000 | 210 | 390 | 10 | 650 | 150.0 | 1000 | 3 | 3 |
| V275K25 | 275 | 350 | 1.00 | 15000 | 230 | 430 | 10 | 710 | 150.0 | 900 | 3 | 3 |
| V300K25 | 300 | 385 | 1.00 | 15000 | 240 | 470 | 10 | 775 | 150.0 | 830 | 3 | 3 |
| V320K25 | 320 | 420 | 1.00 | 15000 | 275 | 510 | 10 | 840 | 150.0 | 770 | 3 | 3 |
| V350K25 | 350 | 460 | 1.00 | 15000 | 300 | 560 | 10 | 925 | 150.0 | 670 | 3 | 3 |
| V385K25 | 385 | 505 | 1.00 | 15000 | 320 | 620 | 10 | 1025 | 150.0 | 550 | 3 | 3 |
| V420K25 | 420 | 560 | 1.00 | 15000 | 360 | 680 | 10 | 1120 | 150.0 | 490 | 3 | 3 |
| V440K25 | 440 | 585 | 1.00 | 15000 | 380 | 715 | 10 | 1180 | 150.0 | 470 | 3 | 3 |
| V460K25 | 460 | 615 | 1.00 | 15000 | 390 | 750 | 10 | 1240 | 150.0 | 460 | 3 | 3 |
| V510K25 | 510 | 670 | 1.00 | 15000 | 410 | 820 | 10 | 1355 | 150.0 | 440 | 3 | 3 |
| V550K25 | 550 | 745 | 1.00 | 15000 | 425 | 910 | 10 | 1500 | 150.0 | 380 | 3 | 3 |
| V625K25 | 625 | 825 | 1.00 | 15000 | 480 | 1000 | 10 | 1650 | 150.0 | 350 | 3 | 3 |
| V680K25 | 680 | 895 | 1.00 | 15000 | 525 | 1100 | 10 | 1815 | 150.0 | 330 | 3 | 3 |
| V750K25 | 750 | 1060 | 1.00 | 15000 | 580 | 1200 | 10 | 1980 | 150.0 | 300 | 3 | 3 |

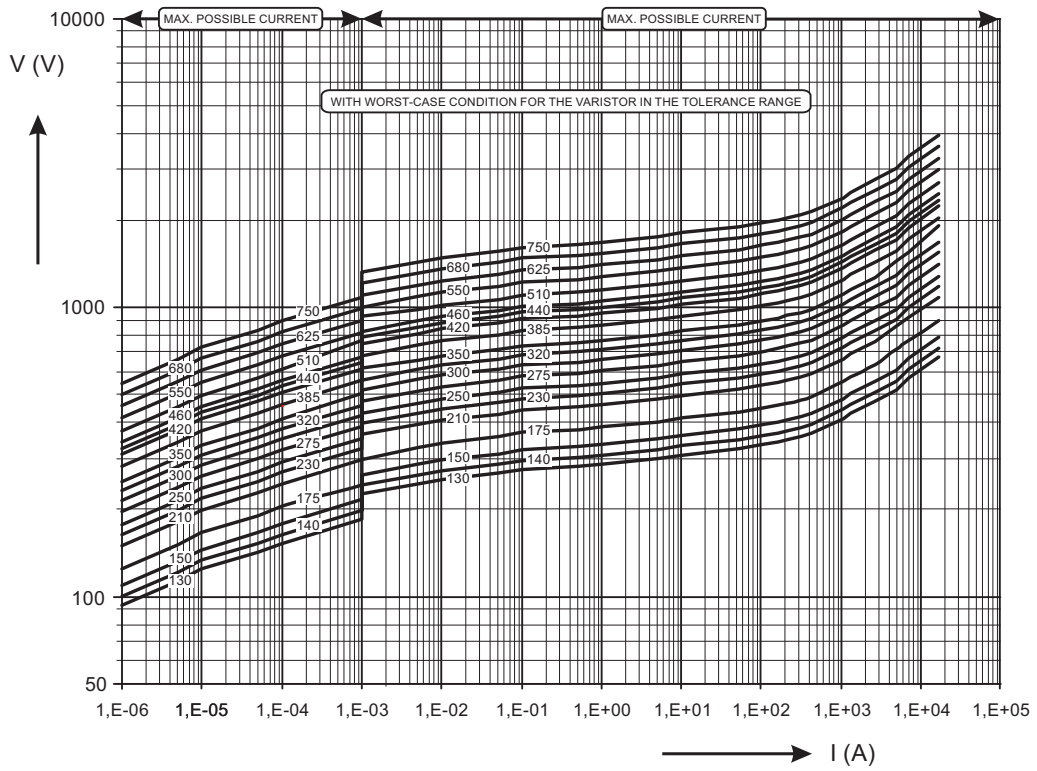
Dimensions

| D _{max} (mm) | H _{max} (mm) | T _{max} (mm) | W ±1 (mm) | L ±1 (mm) | h _{max} (mm) | I _{max} (mm) | d ±0.05 (mm) | Part Number |
|-----------------------|-----------------------|-----------------------|-----------|-----------|-----------------------|-----------------------|--------------|-------------|
| 28.0 | 31.0 | 4.8 | 10.0 | 2.4 | 4 | 30 | 0.8 | V130K25 |
| 28.0 | 31.0 | 5.3 | 10.0 | 2.6 | 4 | 30 | 0.8 | V140K25 |
| 28.0 | 31.0 | 5.4 | 10.0 | 2.7 | 4 | 30 | 0.8 | V150K25 |
| 28.0 | 31.0 | 5.5 | 10.0 | 2.8 | 4 | 30 | 0.8 | V175K25 |
| 28.0 | 31.0 | 5.6 | 10.0 | 2.9 | 4 | 30 | 0.8 | V210K25 |
| 28.0 | 31.0 | 5.7 | 10.0 | 3.0 | 4 | 30 | 0.8 | V230K25 |
| 28.0 | 31.0 | 5.8 | 10.0 | 3.1 | 4 | 30 | 0.8 | V250K25 |
| 28.0 | 31.0 | 5.8 | 10.0 | 3.2 | 4 | 30 | 0.8 | V275K25 |
| 28.0 | 31.0 | 6.0 | 10.0 | 3.3 | 4 | 30 | 0.8 | V300K25 |
| 28.0 | 31.0 | 6.1 | 10.0 | 3.4 | 4 | 30 | 0.8 | V320K25 |
| 28.0 | 31.0 | 6.3 | 10.0 | 3.6 | 4 | 30 | 0.8 | V350K25 |
| 28.0 | 31.0 | 6.5 | 10.0 | 3.8 | 4 | 30 | 0.8 | V385K25 |
| 28.0 | 31.0 | 6.7 | 10.0 | 4.0 | 4 | 30 | 0.8 | V420K25 |
| 28.0 | 31.0 | 6.8 | 10.0 | 4.1 | 4 | 30 | 0.8 | V440K25 |
| 28.0 | 31.0 | 6.9 | 10.0 | 4.2 | 4 | 30 | 0.8 | V460K25 |
| 28.0 | 31.0 | 7.0 | 10.0 | 4.3 | 4 | 30 | 0.8 | V510K25 |
| 28.0 | 31.0 | 7.8 | 10.0 | 5.1 | 4 | 30 | 0.8 | V550K25 |
| 28.0 | 31.0 | 8.3 | 10.0 | 5.6 | 4 | 30 | 0.8 | V625K25 |
| 28.0 | 31.0 | 8.7 | 10.0 | 6.0 | 4 | 30 | 0.8 | V680K25 |
| 28.0 | 31.0 | 9 | 10.0 | 6.3 | 4 | 30 | 0.8 | V750K25 |



V-I Characteristics

V130K25-V750K25



Pulse Ratings

V130K25-V750K25

