Disc Varistors with Radial Leads - K25P 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 P Series Disc Varistors with Radial Leads are: radial leads structure for PCB mounting, lower price compared to the E Series High Energy Varistors, increased peak current and high energy absorption capability.

Main Features

Wide Operating Voltage Range V_{RMS}	130 V to 750 V
High Energy Absorption Capability Wmax (2 ms)	170 J to 725 J
High Peak Current Capability I_{max} (8/20 µs)	20000 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 GΩ	in accordance with CECC 42 000
Response Time	< 25 ns	

Type Designation

V 275 K 25 P

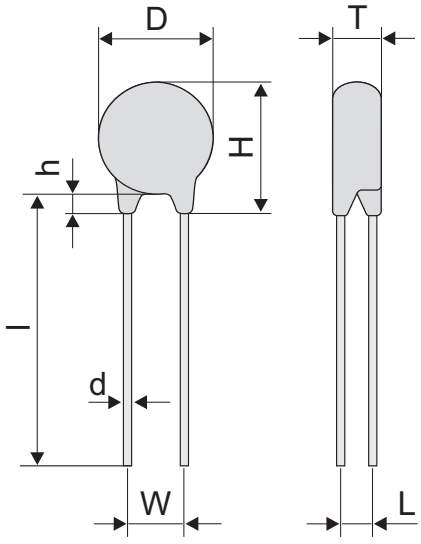
- **V** — **VARSI** Metal Oxide Varistor
- **275** — **Max. AC Operating Voltage**
- **K** — **Tolerance of Varistor Voltage V_N** K: ±10 %
- **25** — **Model Size** (Disc Diameter)
- **P** — **P Series**

Table of Standard Values

Part Number	Maximum Ratings T_A =+85°C (+185°F)					Characteristics T_A = +25°C (+77°F)					V - I Characte-ristic	Pulse Rating
	Operating Voltage		Average Power Dissipation	Permissible Peak Current (8/20 µs)	Energy Absorption (2 ms)	Varistor Voltage (1 mA)	Standard Tolerance of V_N	Maximum Clamping Voltage at Test Current (8/20 µs)		Typical Capacitance f=1kHz		
	RMS Voltage V_{RMS} (V)	DC Voltage V_{DC} (V)	P_{max} (W)	I_{max} (A)	W_{max} (J)	V_N (V)	ΔV_N (±%)	V_C (V)	I (A)	C (pF)	Page	Page
V130K25P	130	170	1.00	20000	170	205	10	340	150.0	1900	3	3
V140K25P	140	180	1.00	20000	180	220	10	360	150.0	1750	3	3
V150K25P	150	200	1.00	20000	200	240	10	395	150.0	1650	3	3
V175K25P	175	225	1.00	20000	230	270	10	455	150.0	1400	3	3
V210K25P	210	270	1.00	20000	240	330	10	540	150.0	1300	3	3
V230K25P	230	300	1.00	20000	250	360	10	595	150.0	1100	3	3
V250K25P	250	320	1.00	20000	280	390	10	650	150.0	1000	3	3
V275K25P	275	350	1.00	20000	300	430	10	710	150.0	900	3	3
V300K25P	300	385	1.00	20000	320	470	10	775	150.0	830	3	3
V320K25P	320	420	1.00	20000	355	510	10	840	150.0	770	3	3
V350K25P	350	460	1.00	20000	390	560	10	925	150.0	670	3	3
V385K25P	385	505	1.00	20000	440	620	10	1025	150.0	550	3	3
V420K25P	420	560	1.00	20000	480	680	10	1120	150.0	490	3	3
V440K25P	440	585	1.00	20000	500	715	10	1180	150.0	470	3	3
V460K25P	460	615	1.00	20000	530	750	10	1240	150.0	460	3	3
V510K25P	510	670	1.00	20000	550	820	10	1355	150.0	440	3	3
V550K25P	550	745	1.00	20000	570	910	10	1500	150.0	380	3	3
V625K25P	625	825	1.00	20000	640	1000	10	1650	150.0	350	3	3
V680K25P	680	895	1.00	20000	660	1100	10	1815	150.0	330	3	3
V750K25P	750	1060	1.00	20000	725	1200	10	1980	150.0	300	3	3

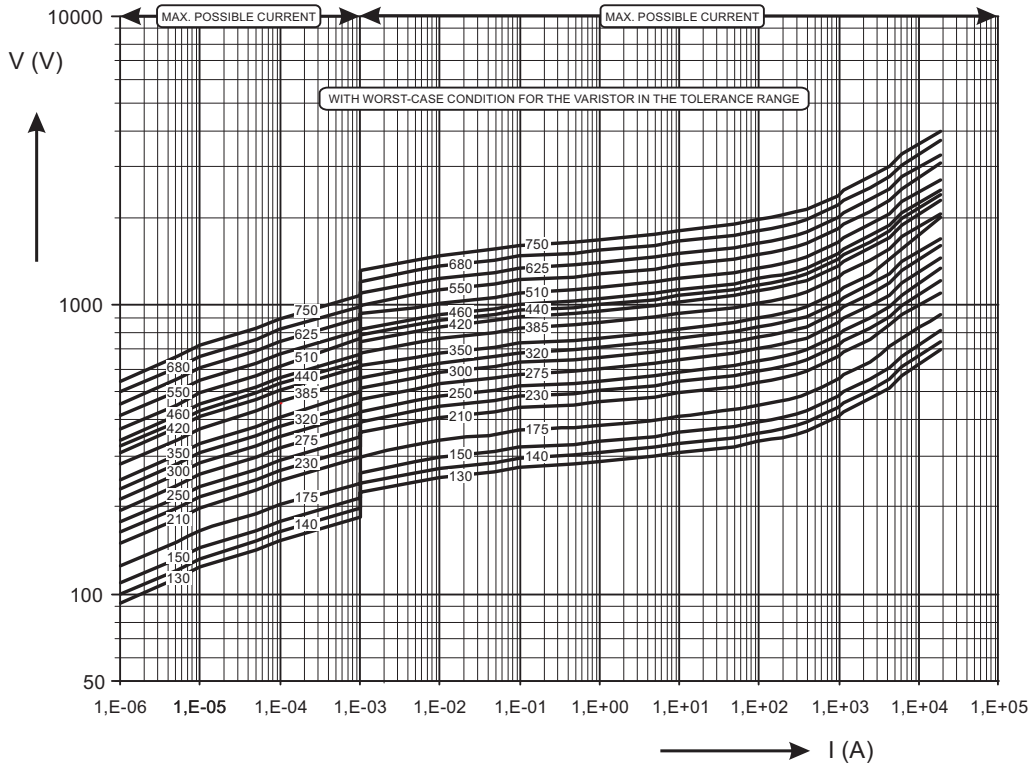
Dimensions

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	5.2	10.0	2.6	4	30	1.0	V130K25P
28.0	31.0	5.7	10.0	2.8	4	30	1.0	V140K25P
28.0	31.0	5.8	10.0	2.9	4	30	1.0	V150K25P
28.0	31.0	5.9	10.0	3.0	4	30	1.0	V175K25P
28.0	31.0	6.0	10.0	3.1	4	30	1.0	V210K25P
28.0	31.0	6.1	10.0	3.2	4	30	1.0	V230K25P
28.0	31.0	6.2	10.0	3.3	4	30	1.0	V250K25P
28.0	31.0	6.3	10.0	3.4	4	30	1.0	V275K25P
28.0	31.0	6.4	10.0	3.5	4	30	1.0	V300K25P
28.0	31.0	6.5	10.0	3.6	4	30	1.0	V320K25P
28.0	31.0	6.7	10.0	3.8	4	30	1.0	V350K25P
28.0	31.0	6.9	10.0	4.0	4	30	1.0	V385K25P
28.0	31.0	7.3	10.0	4.2	4	30	1.0	V420K25P
28.0	31.0	7.4	10.0	4.3	4	30	1.0	V440K25P
28.0	31.0	7.4	10.0	4.4	4	30	1.0	V460K25P
28.0	31.0	7.4	10.0	4.5	4	30	1.0	V510K25P
28.0	31.0	8.2	10.0	5.3	4	30	1.0	V550K25P
28.0	31.0	8.7	10.0	5.8	4	30	1.0	V625K25P
28.0	31.0	9.1	10.0	6.2	4	30	1.0	V680K25P
28.0	31.0	9.4	10.0	6.5	4	30	1.0	V750K25P



V-I Characteristics

V130K25P-V750K25P



Pulse Ratings

V130K25P-V750K25P