PV Series

Low & Medium Voltage Plastic Encapsulated SMD Varistor

Stackpole Electronics, Inc.
Resistive Product Solutions

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
- +85ºC 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

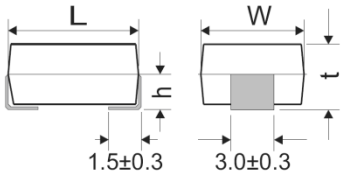
Electrical Specifications

Climatic Category	55 / 125 / 56	In accordance with IEC 60068-1
Operating Temperature	-40ºC to +85ºC	In accordance with CECC 42 000
Storage Temperature Range	-40ºC to +125ºC	
Threshold Voltage Temperature Coefficient	≤0.05% / ºC	
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

Device Ratings and Dimensions



Part Number	V_{RMS} (volts)	V_{DC} (volts)	V_n @ 1mA (volts)	V_C (volts)	I_C (amps)	W_{MAX} (joules)	P_{MAX} (watts)	I_{max} 8/20 µs (amps)	C_{TYP} @ 1kHz (pF)	h ± 0.3 (mm)	L ± 0.5 (mm)	W ± 0.4 (mm)	t ± 0.3 (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

Device Ratings and Dimensions

Part Number	V_{RMS} (volts)	V_{DC} (volts)	V_n @ 1mA (volts)	V_C (volts)	I_C (amps)	W_{MAX} (joules)	P_{MAX} (watts)	I_{max} 8/20 µs (amps)	C_{TYP} @ 1kHz (pF)	h ± 0.3 (mm)	L ± 0.5 (mm)	W ± 0.4 (mm)	t ± 0.3 (mm)
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

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	
PV	Low & Medium Voltage Plastic Encapsulated SMD Varistor

Vrms
40

Tolerance	
Code	Tol
K	10%
S	Special

Chip Size
3225
4032

Packaging	
Code	Description
T	Tape and Reel