

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 5 mm and 7 mm 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 (V_{rms}) from 60 V to 300 V and feature maximum surge currents from 400 A up to 1200 A.

Features:

- AC operating voltage (V_{rms}) from 60 V to 300 V
- DC operating voltage (V_{dc}) from 85 V to 385 V
- Insensitive to water cleaning procedures and to humidity according to the climate category 55°C/125°C/56°C
- +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
- UL1449, 3rd Ed. and CSA C22.2 certified
- RoHS compliant, REACH compliant, and halogen free

Electrical Specifications

Climatic Category	55°C / 125°C / 56°C
Operating Temperature	-40°C to +85°C
Storage Temperature Range	-40°C to +125°C
Threshold Voltage Temperature Coefficient	≤ 0.05% /°C
Response Time	< 5 nS

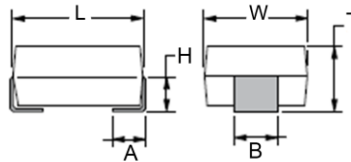
Device Ratings and Dimensions

Part Number	V_{RMS} (volts)	V_{DC} (volts)	V_n (@ 1mA) (volts)	V_C (volts)	I_C (amps)	P_{MAX} (watts)	I_{max} (8/20 μ Sec) (amps)	C_{TYP} (@ 1kHz) (pF)	W_{MAX} (joules)
PV60K3225	60	85	100	165	5.0	0.10	400	330	3.0
PV60K4032	60	85	100	165	10.0	0.25	1200	680	7.0
PV75K3225	75	100	120	200	5.0	0.10	400	270	4.0
PV75K4032	75	100	120	200	10.0	0.25	1200	550	9.0
PV95K3225	95	125	150	250	5.0	0.10	400	220	6.0
PV95K4032	95	125	150	250	10.0	0.25	1200	440	11.0
PV115K3225	115	150	180	300	5.0	0.10	400	180	6.5
PV115K4032	115	150	180	300	10.0	0.25	1200	360	13.0
PV130K3225	130	170	205	340	5.0	0.10	400	160	7.0
PV130K4032	130	170	205	340	10.0	0.25	1200	320	15.0
PV140K3225	140	180	220	360	5.0	0.10	400	150	7.5
PV140K4032	140	180	220	360	10.0	0.25	1200	300	18.0
PV150K3225	150	200	240	395	5.0	0.10	400	140	9.0
PV150K4032	150	200	240	395	10.0	0.25	1200	280	18.5
PV175K3225	175	225	270	455	5.0	0.10	400	120	9.5
PV175K4032	175	225	270	455	10.0	0.25	1200	250	21.0
PV230K3225	230	300	360	595	5.0	0.10	400	95	10.0
PV230K4032	230	300	360	595	10.0	0.25	1200	190	23.0

Device Ratings and Dimensions (cont.)

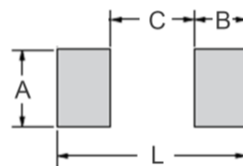
Part Number	V _{RMS} (volts)	V _{DC} (volts)	V _n (@ 1mA) (volts)	V _C (volts)	I _C (amps)	P _{MAX} (watts)	I _{max} (8/20 μSec) (amps)	C _{TYP} (@ 1kHz) (pF)	W _{MAX} (joules)
PV250K3225	250	320	390	650	5.0	0.10	400	80	11.0
PV250K4032	250	320	390	650	10.0	0.25	1200	180	25.0
PV275K3225	275	350	430	710	5.0	0.10	400	75	13.0
PV275K4032	275	350	430	710	10.0	0.25	1200	160	29.0
PV300K3225	300	385	470	775	5.0	0.10	400	70	15.0
PV300K4032	300	385	470	775	10.0	0.25	1200	150	30.0

Mechanical Specifications



Size	Voltage Range (V)	H	L	W	T	A	B	Unit
3225	60 to 150	0.067 ± 0.012	0.315 ± 0.020	0.248 ± 0.016	0.134 ± 0.012	0.059 ± 0.012	0.118 ± 0.012	inches
		1.70 ± 0.30	8.00 ± 0.50	6.30 ± 0.40	3.40 ± 0.30			mm
3225	175 to 300	0.091 ± 0.012	0.315 ± 0.020	0.248 ± 0.016	0.185 ± 0.012	1.50 ± 0.30	3.00 ± 0.30	inches
		2.30 ± 0.30	8.00 ± 0.50	6.30 ± 0.40	4.70 ± 0.30			mm
4032	60 to 300	0.091 ± 0.012	0.394 ± 0.020	0.315 ± 0.016	0.185 ± 0.012	1.50 ± 0.30	3.00 ± 0.30	inches
		2.30 ± 0.30	10.00 ± 0.50	8.00 ± 0.40	4.70 ± 0.30			mm

Recommended Pad Layout



Size	A	B	C	L	Unit
3225	0.138	0.114	0.177	0.406	inches
	3.50	2.90	4.50	10.30	mm
4032	0.138	0.114	0.256	0.484	inches
	3.50	2.90	6.50	12.30	mm

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)
PV	Low and Medium Voltage Plastic Encapsulated SMD Varistor	SMD	YES ⁽¹⁾	100% Matte Sn	Always	Always

Note (1): RoHS Compliant by means of exemption 7c-l.

“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

