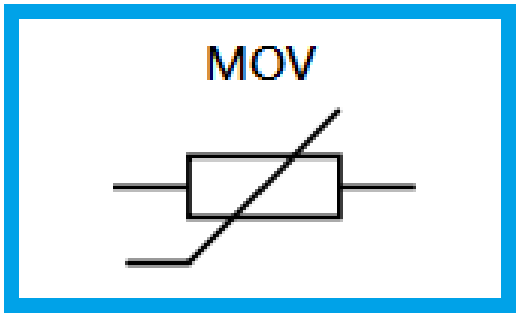
PMVJ3220 Series MOV Devices

Features

- Wide operating voltages ranging from 11 V_{rms} to 460 V_{rms} (14 V_{dc} to 615 V_{dc}).
- Improved component design in a compact case
- High surge current capability
- Superior performance at high temperature
- SMD mountable disk varistors, suitable for lead-free reflow / wave soldering.



Applications

- Power supplies for telecommunication systems
- Protection for LED circuits
- Protection for consumer, industrial equipment
- Protection for automotive electronics

General Characteristics Definition

- Operating temperature: -55 ~ 125 °C
- Storage temperature: -55 ~ 150 °C

Part Number Code

PMVJ 3220 - □□□ □

- Product Function (G: General absorption; H: High surge)
- Varistor (Breakdown) Voltage
- Chip Size (3220: 0.32” x 0.20”)
- PolyTrans Surface Mounted Varistor

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Electrical Characteristics

Part Number	Max Allowable Voltage		Varistor Voltage V_b @ 1 mA	Withstand Surge Current I_{PP} 8/20 μs		Max Clamping Voltage V_C		Typical Capacitance
	V_{RMS}	V_{DC}		G 1 time	H 1 time	V	I	
	(V)	(V)	(V)	(A)	(A)	(V)	(A)	(pF)
PMVJ3220-180(G/H)	11	14	18	250	500	36	2.5	3000
PMVJ3220-220(G/H)	14	18	22	250	500	43	2.5	2500
PMVJ3220-270(G/H)	17	22	27	250	500	53	2.5	2000
PMVJ3220-330(G/H)	20	26	33	250	500	65	2.5	1800
PMVJ3220-390(G/H)	25	31	39	250	500	77	2.5	1000
PMVJ3220-470(G/H)	30	38	47	250	500	93	2.5	1500
PMVJ3220-560(G/H)	35	45	56	250	500	110	2.5	1250
PMVJ3220-680(G/H)	40	56	68	250	500	135	2.5	1200
PMVJ3220-820(G/H)	50	65	82	1000	1500	135	10	900
PMVJ3220-101(G/H)	60	85	100	1000	1500	165	10	600
PMVJ3220-121(G/H)	75	100	120	1000	1500	200	10	420
PMVJ3220-151(G/H)	95	125	150	1000	1500	250	10	350
PMVJ3220-181(G/H)	115	150	180	1000	1500	300	10	300
PMVJ3220-201(G/H)	130	170	200	1000	1500	340	10	240
PMVJ3220-221(G/H)	140	180	220	1000	1500	360	10	220
PMVJ3220-241(G/H)	150	200	240	1000	1500	395	10	200
PMVJ3220-271(G/H)	175	225	270	1000	1500	455	10	170
PMVJ3220-331(G/H)	210	270	330	1000	1500	545	10	155
PMVJ3220-361(G/H)	230	300	360	1000	1500	595	10	140
PMVJ3220-391(G/H)	250	320	390	1000	1500	650	10	120
PMVJ3220-431(G/H)	275	350	430	1000	1500	710	10	120
PMVJ3220-471(G/H)	300	385	470	1000	1500	775	10	110
PMVJ3220-511(G/H)	320	420	510	1000	1500	845	10	105
PMVJ3220-561(G/H)	350	460	560	1000	1500	930	10	100
PMVJ3220-621(G/H)	385	505	620	1000	1500	1025	10	95
PMVJ3220-681(G/H)	420	560	680	1000	1500	1120	10	90
PMVJ3220-751(G/H)	460	615	750	1000	1500	1240	10	75

Note: The tolerance of varistor voltage is ±10%

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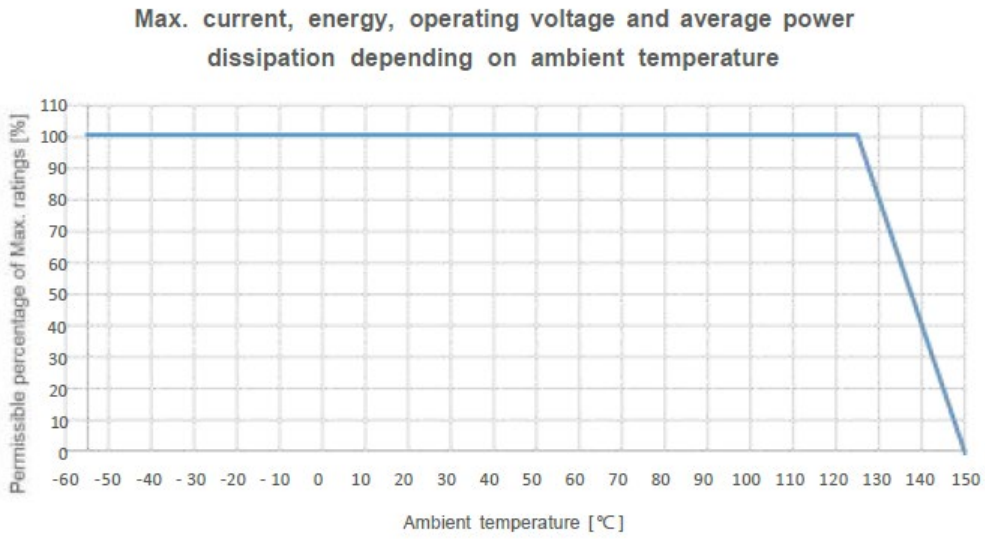
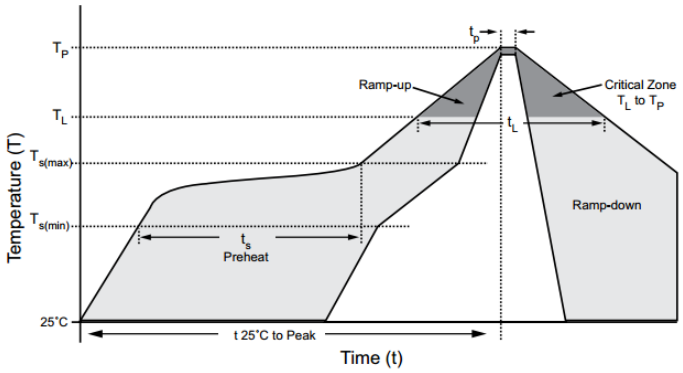
Power Derating Curve



Lead Free Reflow Soldering Recommendations

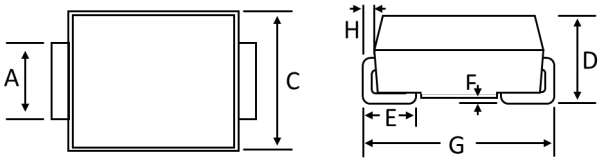
Preheat	
- Temperature Min (T_{s_min})	150 °C
- Temperature Max (T_{s_max})	200 °C
- Time (T_{s_min} to T_{s_max})	60-180 seconds
- Average Ramp-Up Rate	1~3 °C/second
Peak Temperature	260 °C max.
Time within 5°C of actual Peak Temperature (t_p)	40 seconds max.
Ramp-Down Rate	6 °C /second max.



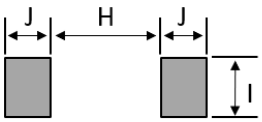
Note: If the wave soldering temperatures exceed the recommended profile, devices may not meet the performance requirements.

PMVJ3220 Series MOV Devices

Physical Dimensions



Solder pad layout

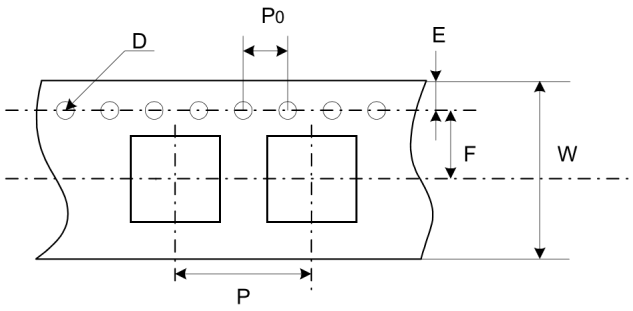


Dimension	Millimeters			Inches		
	Min	Typ.	Max	Min	Typ.	Max
A	2.70		3.30	0.106		0.130
C	6.00		6.60	0.236		0.26
D	3.30		4.00	0.130		0.157
E	1.20		1.80	0.047		0.071
F	0		0.30	0		0.012
G	7.70		8.60	0.303		0.339
H		4.50			0.177	
I		3.50			0.138	
J		2.80			0.110	

Note:
1. All dimensions are in millimeters.
2. No marking on the device.

Packaging Information

Part Number	Carrier Material	Quantity (EA/Roll)	Reel Diameter (mm)
PMVJ3220 Series	Plastic	1000	330±1.0 (13" Plastic Reel)



Symbol	Dimension (mm)
P	12.0±0.2
P0	4.0±0.2
D	1.50±0.1
E	1.75±0.2
F	7.5±0.2
W	16.0±0.2
C	330
E1	13.3±0.3
W1	20.7±2.0