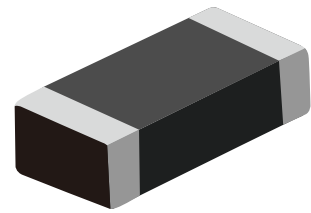


FEATURES

- | Working Voltage From 3.3V to 350V DC
- | Low Capacitance Design (0.2pF) For Fast Data Transmission
- | Fast Response Time (<0.5ns)
- | Low Leakage Current
- | High Surge Current Ability
- | Suitable For ESD Protection
- | Bidirectional Clamping, High Energy
- | Good Temperature Coefficient



1206

APPLICATIONS

- | Universal Serial Bus (USB)
- | Mobile Communication
- | Computer/DSP Product
- | Video and Audio Ports
- | Automotive Electronics
- | Armarium

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

GENERAL CHARACTERISTICS DEFINITION

- | Operating Temperature Range :-55°C ~ +125°C
- | Storage Temperature Range :-40°C ~ +125°C

ELECTRICAL CHARACTERISTICS

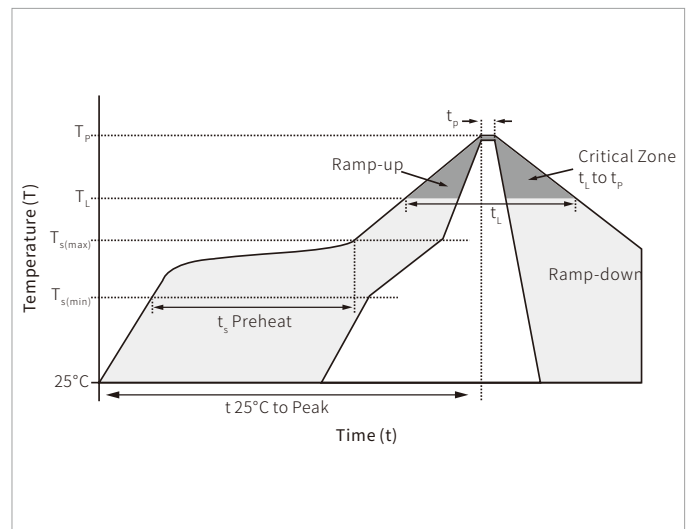
Part Number	Working Voltage		Breakdown Voltage @1mA DC (V)	Peak Current I _{pp} (8/20μs) (A)	Clamping Voltage 8/20μs		Surge Voltage (V)
	V _{Ac} (V)	V _{Dc} (V)			(A)	(V)	
SMV1206B5.0A	2.4	3.3	5(4.0-6.0)	100/200	1-10	12	≥500
SMV1206B8.0A	4	5.5	5.5(6.6-9.9)	100/200	1-10	18	≥500
SMV1206B12A	7	9	12(10.2-13.8)	120/200	1-10	24	≥500
SMV1206B18A	11	14	18(15.3-21.7)	120/200	1-10	30	≥500
SMV1206B22A	12	16	22(19.8-24.2)	120/200	1-10	36	≥500
SMV1206B24A	14	18	24(21.6-26.4)	120/200	1-10	38	≥500
SMV1206B27A	17	22	27(24.3-29.7)	120/200	1-10	44	≥500
SMV1206B30A	18	24	30(27.2-33.0)	120/200	1-10	48	≥500
SMV1206B33A	20	26	33(29.7-36.3)	120/200	1-10	54	≥500
SMV1206B36A	22	28	36(32.7-39.6)	120/200	1-10	59	≥500
SMV1206B39A	25	30	39(35.1-42.9)	120/200	1-10	65	≥500
SMV1206B42A	26	33	42(38.1-46.2)	120/200	1-10	72	≥500
SMV1206B47A	30	38	47(42.3-51.7)	120/200	1-10	77	≥500
SMV1206B56A	35	45	56(50.4-61.6)	120/200	1-10	90	≥500
SMV1206B68A	40	56	68(61.2-74.8)	120/200	1-10	110	≥500
SMV1206B76A	45	60	76(69.1-83.6)	120/200	1-10	126	≥500
SMV1206B82A	50	65	82(73.8-90.2)	120/200	1-10	135	≥500
SMV1206B101A	60	85	100(90-110)	100/200	1-10	165	≥500
SMV1206B121A	75	100	120(108-132)	200	1-10	200	≥600
SMV1206B171A	110	140	170(154-187)	200	1-10	300	≥600
SMV1206B201A	130	170	200(185-225)	200	1-10	340	≥600
SMV1206B221A	140	180	220(198-242)	200	1-10	360	≥600
SMV1206B241A	150	200	240(216-264)	200	1-10	395	≥600
SMV1206B271A	175	225	270(243-297)	200	1-10	455	≥600
SMV1206B391A	250	320	390(351-429)	200	1-10	650	≥600
SMV1206B431A	275	350	430(387-473)	200	1-10	710	≥600
SMV1206B471A	300	385	470(423-517)	100	1-10	775	≥600
SMV1206B391H	250	320	270(351-429)	350	1-10	650	≥1000
SMV1206B431H	275	350	430(387-473)	350	1-10	710	≥1000

ENVIROMENTAL RELIABILITY TEST

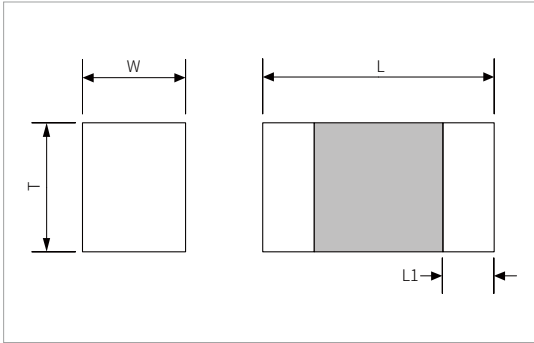
Characteristic	Test method and description			
High Temperature Storage	The specimen shall be subjected to 125°C for 1000 hours in a thermostatic bath without load and then stored at room temperature and humidity for 1 to 2 hours. The change of varistor voltage shall be within 10%			
Temperature Cycle	The temperature cycle of specified temperature shall be repeated five times and then stored at room temperature and humidity for one two hours. The change of varistor voltage shall be within 10%and mechanical damage shall be examined.	Step	Temperature	Period
		1	-40±3°C	30min±3
		2	Room Temperature	1~2hours
		3	125±2°C	30min±3
4	Room Temperature	1~2hours		
High Temperature Load	After being continuously applied the maximum allowable voltage at 85°C for 1000hours, the specimen shall be stored at room temperature and humidity for one or hours, the change of varistor voltage shall be within 10%			
Damp Heat Load/ Humidity Load	The specimen should be subjected to 40°C,90 to 95%RH environment, and the maximum allowable voltage applied for 1000 hours, then stored at room temperature and humidity for one or two hours. The change of varistor voltage shall be within 10%			
Low Temperature Storage	The specimen should be subjected to -40°C, without load for 1000 hours and then stored at room temperature for one two hours. The change of varistor voltage shall be within 10%.			

SOLDERING RECOMMENDATIONS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C



DIMENSION SPECIFICATION



Size	L(mm)	W(mm)	T(mm)	L1(mm)
1206	3.20±0.30	1.60±0.20	1.60Max.	0.4±0.30

DRDERING INF ORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SMV1206	1206	3000PCS	7"

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By QR Code

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