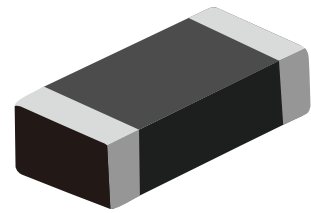


FEATURES

- | Wide operating voltages ranging from 30 Vrms (38 Vdc)
- | Fast response, instantly clamping the transient over voltage
- | High surge current handling capability
- | High energy absorption capability
- | Low clamping voltages, providing better surge protection
- | Low capacitance values, providing digital switching circuitry protection
- | High insulation resistance, preventing electric arcing to the adjacent devices or circuits
- | Meet AEC-Q101 Requirements



0805

APPLICATIONS

- | Universal Serial Bus (USB)
- | Mobile communication
- | Computer/DSP product
- | Video and audio ports
- | Portable/Hand- Held Products
- | Portable/Hand- Held Products

APPROVALS

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

GENERAL CHARACTERISTICS DEFINITION

- | Operating Temperature Range :-55°C ~ +150°C
- | Storage Temperature Range :-55°C ~ +150°C

ELECTRICAL CHARACTERISTICS

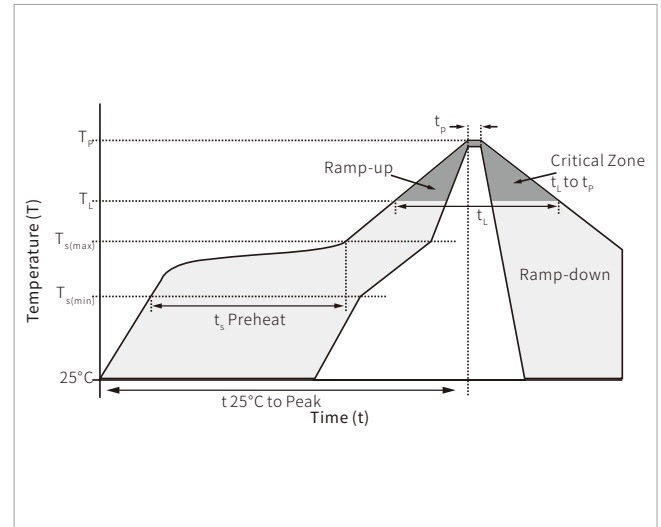
Part Number	Max Allowable Voltage		Varistor Voltage $V_b@1mA$	Energy 10/1000us	Withstanding Surge Current $I_{pp}(8/20\mu s)$	Max Clamping Voltage V_c		Typical Capacitance (Reference)
	$V_{RMS}(V)$	$V_{DC}(V)$	(V)	J	(A)	V(V)	I(A)	(pF)
SMV0805B47AQ	30.0	38.0	47(42.3-51.7)	0.3	120	77	2	280

CHARACTERISTIC CURVES

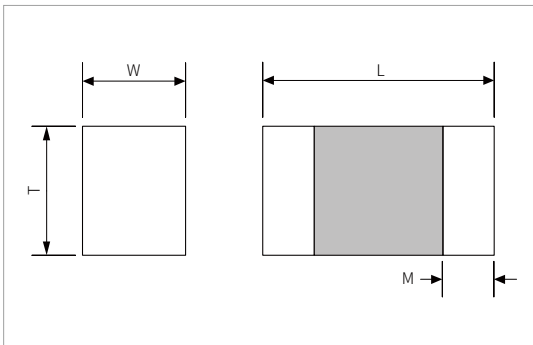
Items	Test condition/Description	Specifications								
Dry Heat Loading	The specimen shall be applied continuously the maximum allowable voltage at the specified conditions for specified period and then stored at room temperature and normal humidity over 2 hours . Thereafter, the change of V_b and mechanical damage shall be examined .Ambient temp: $85\pm 2^\circ C$ / Period: 1000 ± 24 hours	$\Delta V_b / V_b \leq 10\%$								
High Temp Storage	In a dry oven without load . Ambient temp: $125\pm 2^\circ C$ / Period: 1000 ± 24 hours	$\Delta V_b / V_b \leq 10\%$								
Damp Heat/ Humidity Loading	The specimen shall be applied continuously the maximum allowable voltage at the specified conditions for specified period and then stored at room temperature and normal humidity over 2 hours . Thereafter, the change of V_b and mechanical damage shall be examined .Ambient temp: $40\pm 2^\circ C, 90\sim 95\%RH$ /Period: 1000 ± 24 hours	$\Delta V_b / V_b \leq 10\%$								
Temperature Cycle	Condition the specimen to each temperature from step 1 to step 4 in this order for the period shown in the table of specifications . The change of V_b and mechanical damage shall be examined after 2 hours <table border="1" style="margin: 10px auto;"> <tbody> <tr> <td>Step 1</td> <td>$-40\pm 3^\circ C / 30$ min</td> </tr> <tr> <td>Step 2</td> <td>$-40\pm 3^\circ C / 30$ min</td> </tr> <tr> <td>Step 3</td> <td>$85\pm 2^\circ C / 30$ min</td> </tr> <tr> <td>Step 4</td> <td>Room temp / 15 min</td> </tr> </tbody> </table>	Step 1	$-40\pm 3^\circ C / 30$ min	Step 2	$-40\pm 3^\circ C / 30$ min	Step 3	$85\pm 2^\circ C / 30$ min	Step 4	Room temp / 15 min	No visible damage $\Delta V_b / V_b \leq 10\%$
Step 1	$-40\pm 3^\circ C / 30$ min									
Step 2	$-40\pm 3^\circ C / 30$ min									
Step 3	$85\pm 2^\circ C / 30$ min									
Step 4	Room temp / 15 min									
Low Temp Storage	In a cooling chamber without load . Ambient temp: $-40\pm 2^\circ C$ / Period: 1000 ± 24 hours	$\Delta V_b / V_b \leq 10\%$								

SOLDERING PARAMETERS

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)	M(mm)
0805	2.00±0.20	1.25±0.20	0.85±0.20	0.50±0.30

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SMV0805B47AQ	0805	4000PCS	7"

Headquarters

No.3387 Shendu Road
Pujiang I&E Park
Minhang Shanghai China
201000

Hotline

400-021-5756

Web

<https://www.semiware.com>

Sales Center

Tel: 86-21-3463-7458
Email: sales18@semiware.com

Customer Service

Tel: 86-21-5484-1001
Email: sales17@semiware.com

Technical Support

Tel: 86-21-3463-7654
Email: fae01@semiware.com

Complaint & Suggestions

Tel: 86-21-3463-7172
Ext: 8868
Email: cs03@semiware.com

By QR Code

Website



Wechat

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