

Surface mount transient voltage suppressor power 550 watts

Stand-Off Voltage: 200 V~250 V

FEATURES

- For surface mounted applications in order to optimize board space.
- Low profile package
- Glass passivated junction
- Excellent clamping capability
- Low incremental surge resistance

MECHANICAL DATA

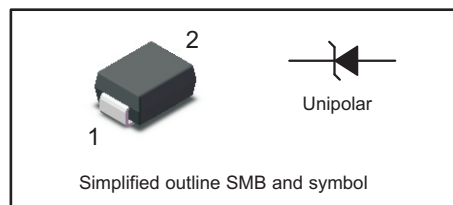
- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.1g / 0.0034oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000 s waveform (Note1,Note2, Fig.1).	P_{PPM}	550	W
Peak Forward Surge Current,8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method) (Note 3,Fig4).	I_{FSM}	100	A
Peak Pulse Current on 10/1000 us waveform (Note 1, Fig 3)	I_{PPM}	see Table 1	A
ESD Voltage per IEC61000-4-2	Contact	V_{ESD1}	± 30
	Air	V_{ESD2}	± 30
Typical Thermal Resistance Junction to Ambient(Note 4)	$R_{\theta JA}$	43	°C/W
Operating Junction Temperature and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above $T_a = 25\text{ °C}$ per Fig. 2.
2. Mounted on 5x5 mm (0.13mm thick) land areas.
3. Measured on 8.3ms,single half sine-wave or equivalent square wave,duty cycle=4 pulses per minute maximum.
4. P.C.B. mounted with 1.5" X 1.5" (3.8 X 3.8 cm) copper pad areas.



Characteristics at Ta = 25°C

Table 1

Type	Marking	V _{RWM}	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current
			V _{BR} @ I _T					
			Min	Max	I _T	I _R @ V _{RWM}	V _C @ I _{PP}	I _{PP}
UNI	UNI	V	V	V	mA	μA	V	A
SMB5.5J200AA	PV	200	224	247	1	1	324	1.7
SMB5.5J220AA	PX	220	246	272	1	1	356	1.53
SMB5.5J250AA	PZ	250	279	309	1	1	405	1.35

Fig.1 Peak Pulse Power Rating Curve

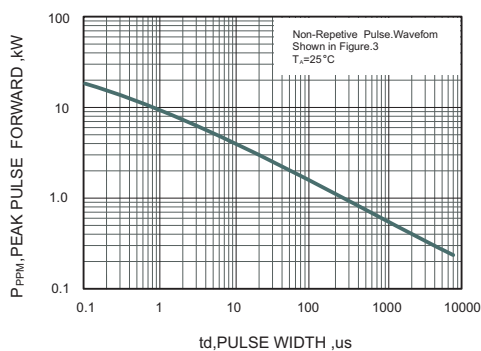


Fig.2 Forward Current Derating Curve

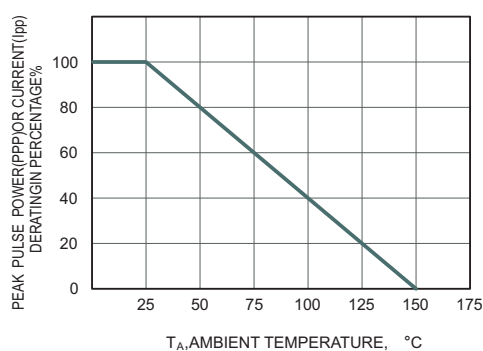


Fig.3 Pulse Waveform

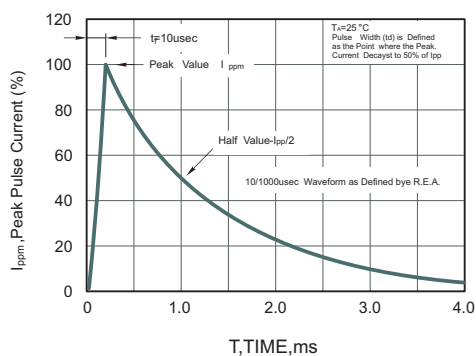
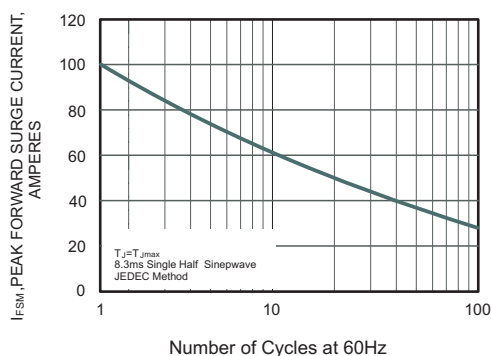


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current

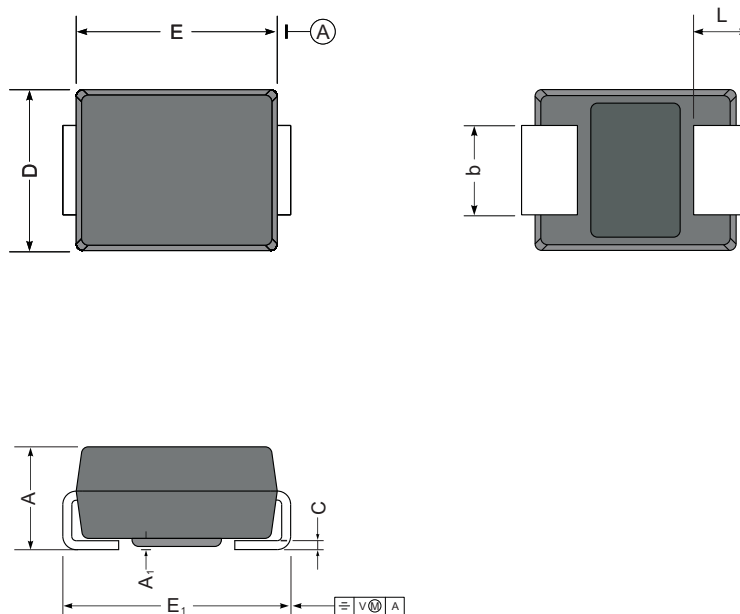




PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

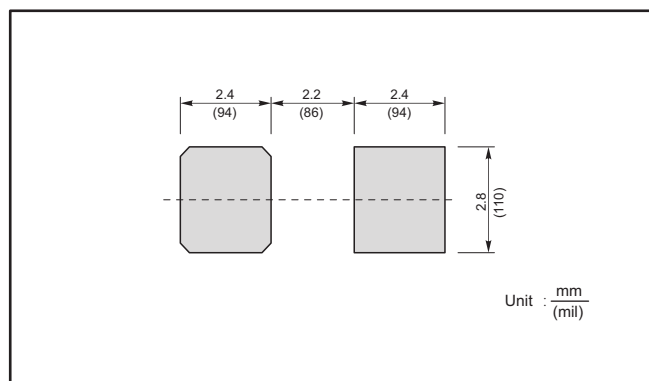
SMB



SMB mechanical data

UNIT		A	E	D	E ₁	A ₁	L	C	b
mm	max	2.44	4.70	3.94	5.59	0.20	1.5	0.305	2.11
	min	2.13	4.06	3.3	5.08	0.05	0.8	0.152	1.91
mil	max	96	185	155	220	7.9	59	12	83
	min	84	160	130	200	2.0	32	6	75

The recommended mounting pad size



Unit : $\frac{\text{mm}}{\text{mil}}$



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