MSV

S5MB

Surface Mount General Purpose Silicon

FEATURES
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA
- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.095g / 0.003oz

Top View
Marking Code : S5MB
Simplified outline SMB and symbol

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Maximum Ratings and Electrical characteristics

Parameter	Symbols	S5MB	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	200	A
Maximum Instantaneous Forward Voltage at 5 A	V_F	1.1	V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a =125 °C	I_R	10 100	μA
Typical Junction Capacitance (1)	C_j	40	pF
Typical Thermal Resistance (2)	$R_{\theta JA}$ $R_{\theta JC}$	48 16	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C
(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Fig.1 Forward Current Derating Curve

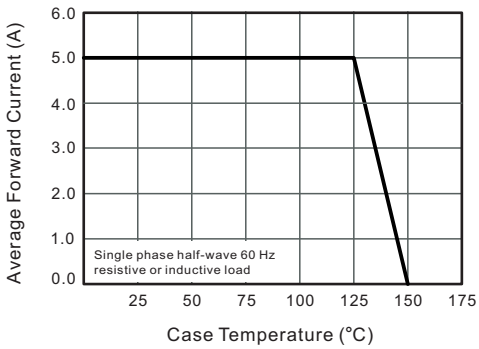


Fig.2 Typical Instaneous Reverse Characteristics

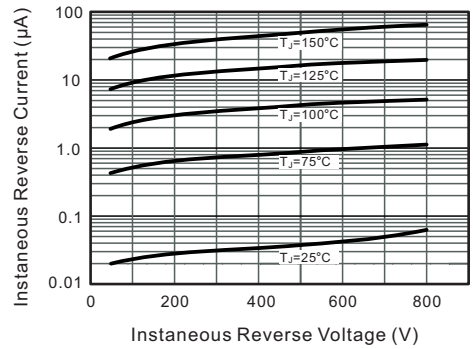


Fig.3 Typical Forward Characteristic

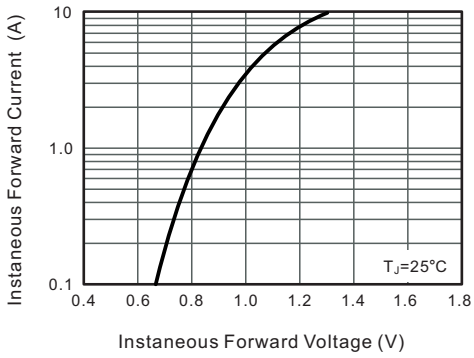


Fig.4 Typical Junction Capacitance

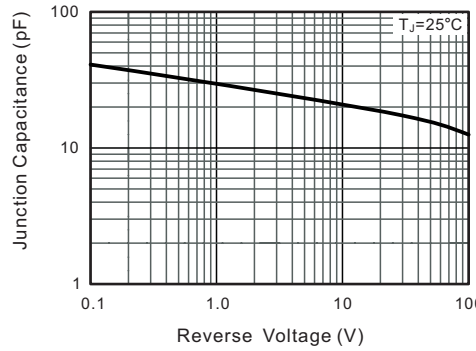
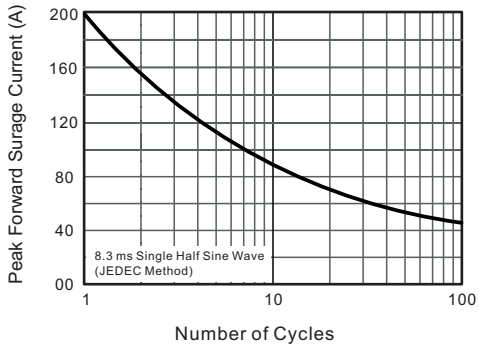


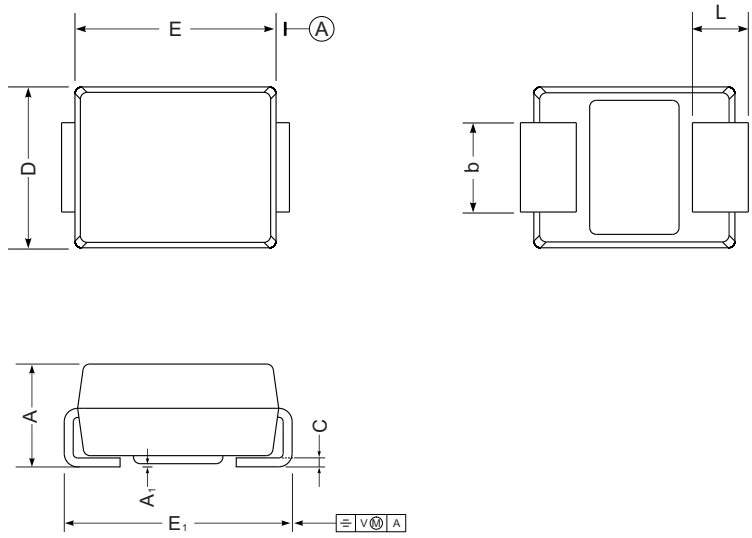
Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

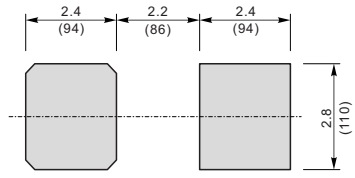
SMB



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	2.2
	min	2.13	4.06	3.3	5.08	0.05	0.8	0.152	1.9
mil	max	96	185	155	220	7.9	59	12	87
	min	84	160	130	200	2.0	32	6	75

The recommended mounting pad size



Unit : mm (mil)