DESCRIPTION

The SS32B~SS320B are available in SMB package.

FEATURE

- Metal Silicon Junction, Majority Carrier Conduction
- For Surface Mounted Applications
- Low Power Loss, High Efficiency
- High Forward Surge Current Capability
- For use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications

MECHANICAL DATA

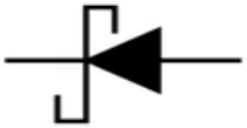
- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.095g / 0.003oz

ORDERING INFORMATION

Package Type	Part Number
SMB	SS32B
	SS34B
	SS36B
	SS38B
	SS310B
	SS312B
	SS315B
	SS320B
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION

SMB



PIN#	DESCRIPTION
1	CATHODE
2	ANODE

ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbol	SS32B	SS34B	SS36B	SS38B	SS310B	SS312B	SS315B	SS320B	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS Voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0								A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	80								A
Maximum Instantaneous Forward Voltage at 3A	V_F	0.55	0.55	0.70	0.85	0.85	0.95	0.95	0.95	V
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage T_A = 25°C	I_R	0.50	0.50	0.50	0.30	0.30	0.30	0.30	0.30	mA
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage T_A=100°C	I_R	5	5	5	3	3	3	3	3	mA
Typical Junction Capacitance (1)	C_j	135	135	107	83	83	68	68	50	pF
Typical Thermal Resistance (2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	100 20 25								°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150								°C
Storage Temperature Range	T_{stg}	-55 ~ +150								°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

(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

TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Forward Current Derating Curve

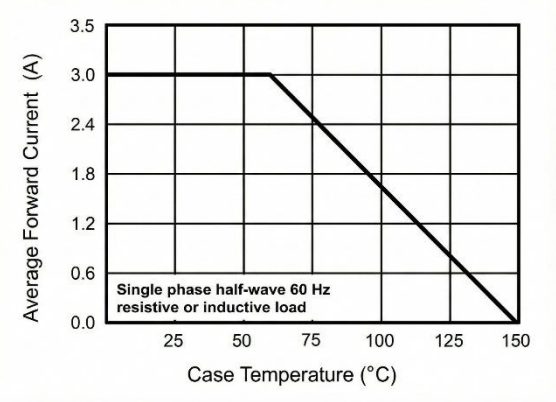


Fig 2. Typical Reverse Characteristics

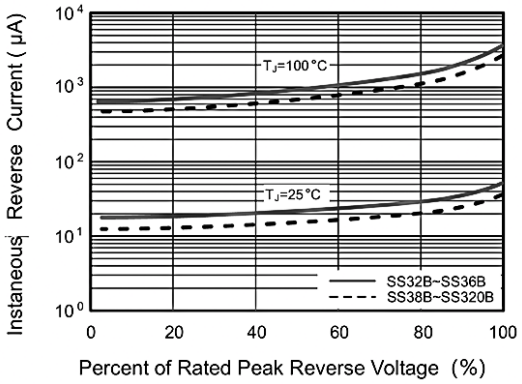


Fig 3. Typical Forward Characteristic

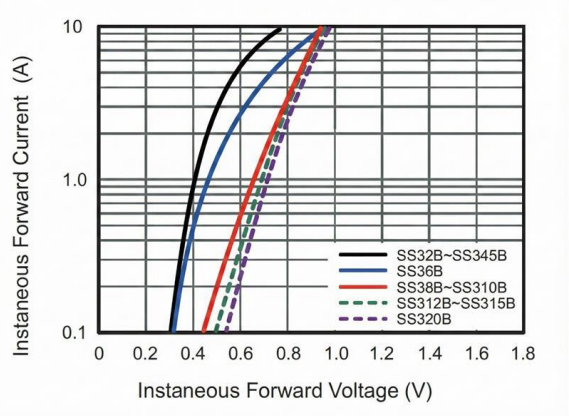


Fig 4. Typical Junction Capacitance

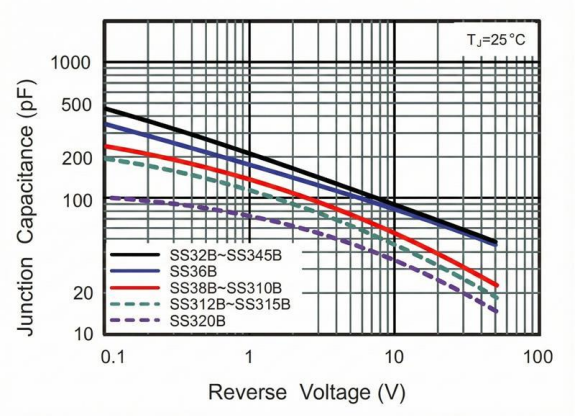
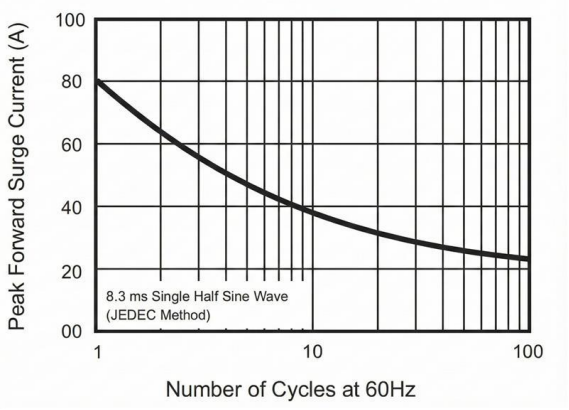
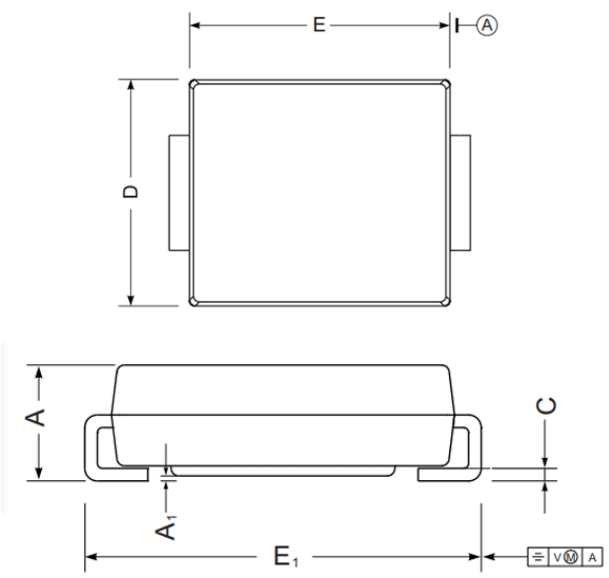


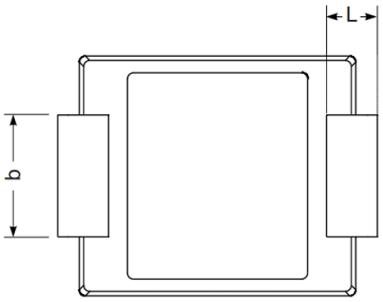
Fig 5. Maximum Non-Repetitive Peak Forward Surage Current



PACKAGE INFORMATION

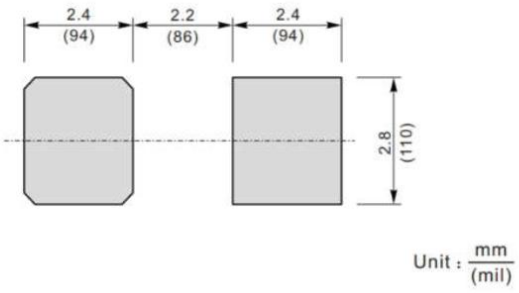
Dimension in SMC Package (Unit: mm)





SYMBOL	MIN	MAX
A	2.13	2.44
E	4.06	4.70
D	3.3	3.94
E_1	5.08	5.59
A_1	0.05	0.20
C	0.152	0.305
L	0.8	1.5
b	1.9	2.2

The recommended mounting pad size



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