DESCRIPTION

The SS22B_SS220B are available in SMB package.

MECHANICAL DATA

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

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

ORDERING INFORMATION

Package Type	Part Number
SMB	SS22B
	SS24B
	SS26B
	SS28B
	SS210B
	SS212B
	SS215B
	SS220B
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, derate by 20 %.

Parameter		Symbol	SS22B	SS24B	SS26B	SS28B	SS210B	SS212B	SS215B	SS220B	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		$I_{F(AV)}$	2								A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)		I_{FSM}	55	55	55	55	45	45	45	45	A
Maximum Instantaneous Forward Voltage at 2A		V_F	0.55	0.55	0.70	0.70	0.85	0.85	0.90	0.90	V
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage	T_A=25℃	I_R	0.50	0.50	0.50	0.30	0.30	0.30	0.30	0.30	mA
	T_A=100℃		5	5	5	3	3	3	3	3	
Typical Junction Capacitance (1)		C_J	220	220	220	110	110	110	110	110	pF
Typical Thermal Resistance (2)		$R_{\theta JA}$	60								℃/W
Operating Junction Temperature Range		T_J	-55 ~ + 150								℃
Storage Temperature Range		T_{STG}	-55 ~ + 150								℃

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

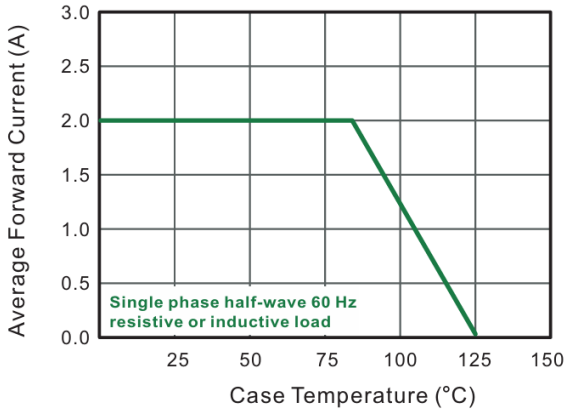


Fig 2. Typical Reverse Characteristics

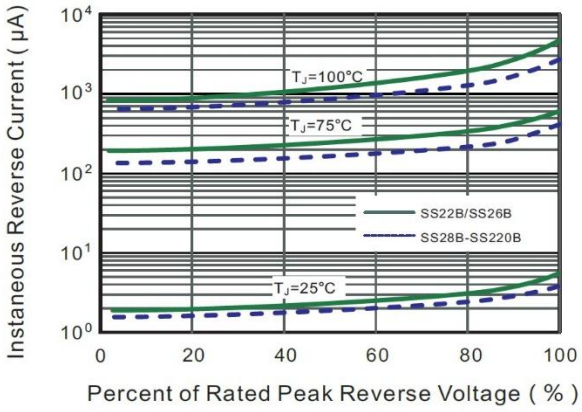


Fig 3. Typical Forward Characteristics

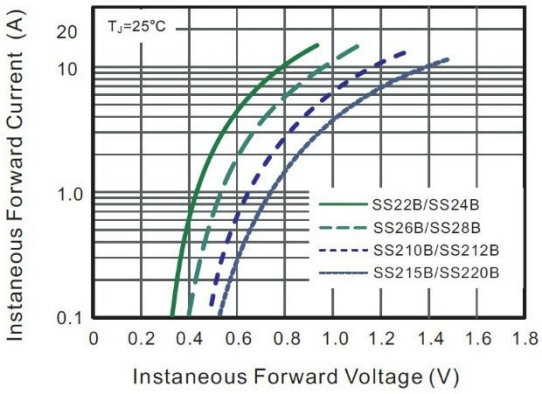


Fig 4. Typical Junction Capacitance

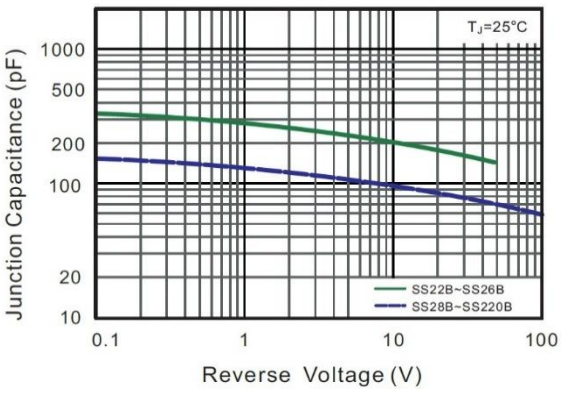


Fig 5. Maximum Non-Repetitive Peak Forward Surge Current

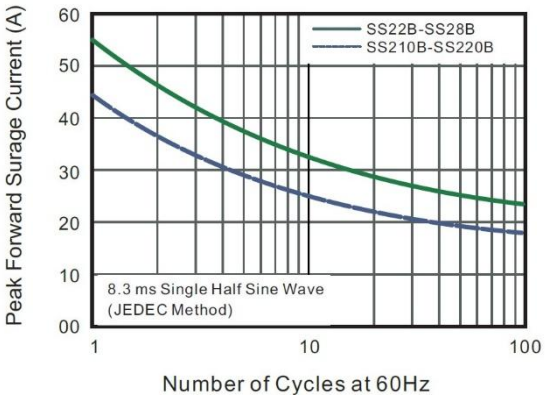
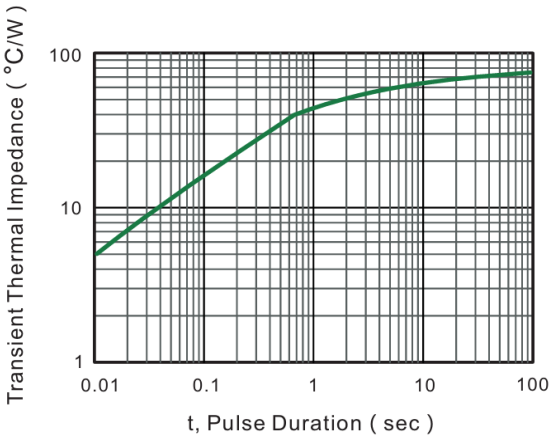
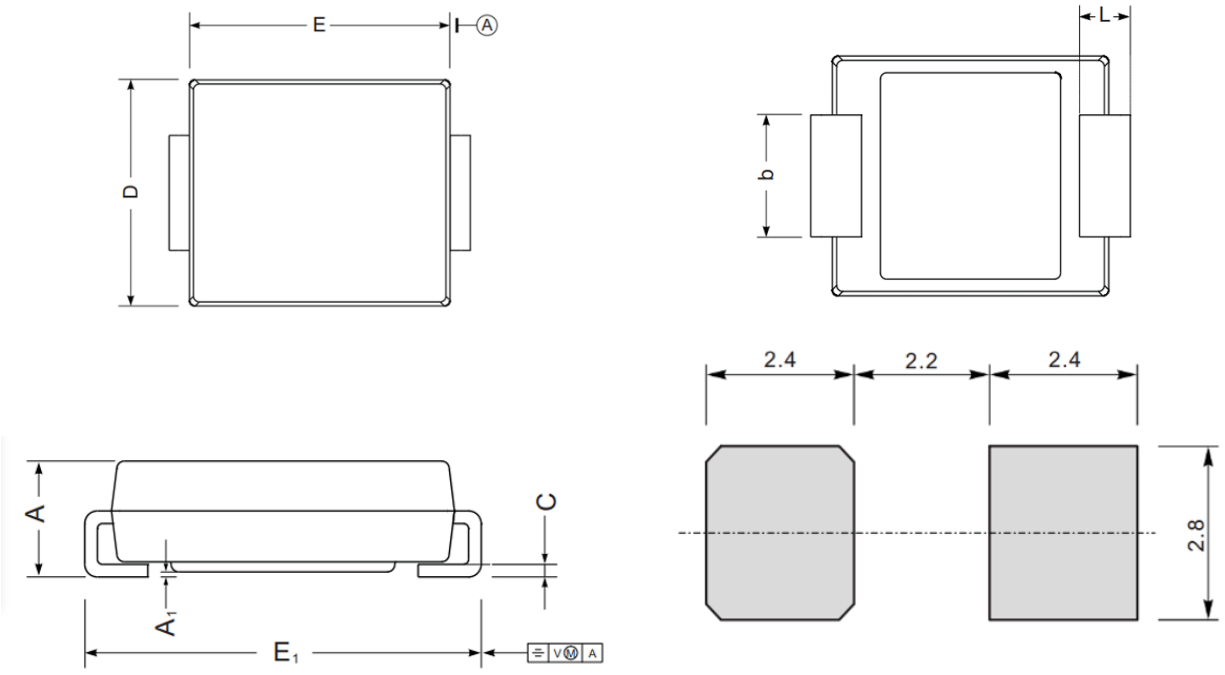


Fig 6. Typical Transient Thermal Impedance



PACKAGE INFORMATION

Dimension in SMB Package (Unit: mm)



The recommended mounting pad size

SYMBOL	MIN.	MAX.
A	2.130	2.440
A1	0.050	0.200
b	1.900	2.200
C	0.152	0.305
D	3.300	3.940
E	4.060	4.700
E1	5.080	5.590
L	0.800	1.500

IMPORTANT NOTICE

AiT Semiconductor Inc. (AiT) reserves the right to make changes to any its product, specifications, to discontinue any integrated circuit product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied on is current.

AiT Semiconductor Inc. integrated circuit products are not designed, intended, authorized, or warranted to be suitable for use in life support applications, devices or systems or other critical applications. Use of AiT products in such applications is understood to be fully at the risk of the customer. As used herein may involve potential risks of death, personal injury, or server property, or environmental damage. In order to minimize risks associated with the customer's applications, the customer should provide adequate design and operating safeguards.

AiT Semiconductor Inc. assumes to no liability to customer product design or application support. AiT warrants the performance of its products of the specifications applicable at the time of sale.