



DESCRIPTION

The MB1S~MB10S are available in MBS package.

ORDERING INFORMATION

Package Type	Part Number
MBS	MB1S
	MB2S
	MB4S
	MB6S
	MB8S
	MB10S
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

FEATURES

- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000V
- Forward Current - 0.8A
- High Surge Current Capability
- Designed for Surface Mount Application
- Available in MBS package

MECHANICAL DATA

Case: MBS

Terminals: Solderable per MIL-STD-750,
Method 2026

Approx. Weight: 100mg /0.0035oz



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter		Symbols	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS Voltage		V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		V_{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current at $T_A = 50^\circ\text{C}$		I_o	0.8						A
Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	30						A
Maximum Forward Voltage	at 0.4 A	V_F							V
	at 0.8 A								
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_A=25^\circ\text{C}$	I_R							uA
	@ $T_A=125^\circ\text{C}$								
Typical Junction Capacitance ^{NOTE1}		C_J	13						pF
Typical Thermal Resistance ^{NOTE2}		$R_{\theta JA}$	95						°C/W
		$R_{\theta JL}$	30						
Operating and Storage Temperature Range		T_J, T_{STG}	-55 ~ +150						°C

NOTE1: Measured at 1MHz and applied reverse voltage of 4 V D.C.

NOTE2: Mounted on glass epoxy PC board with 4×(5×5mm²) copper pad.



TYPICAL PERFORMANCE CHARACTERISTICS

Fig. 1 Average Rectified Output Current Derating Curve

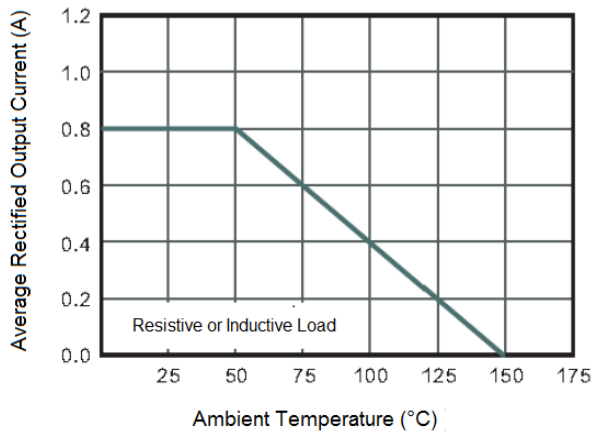


Fig. 2 Typical Reverse Characteristics

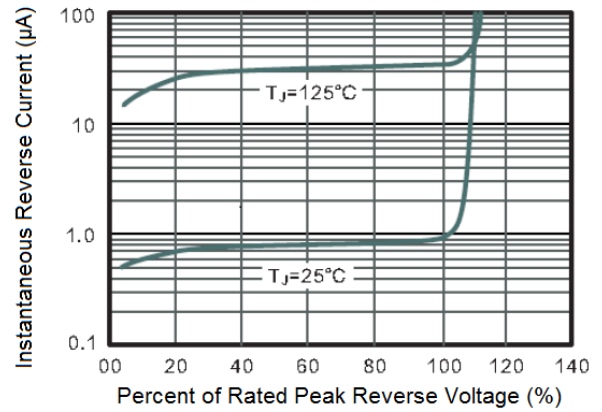


Fig. 3 Typical Instantaneous Forward Characteristics

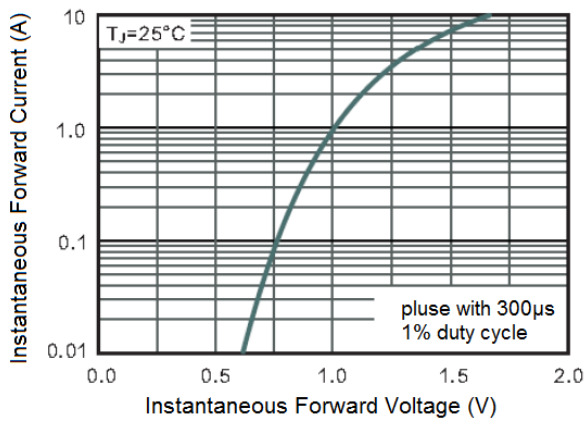


Fig. 4 Typical Junction Capacitance

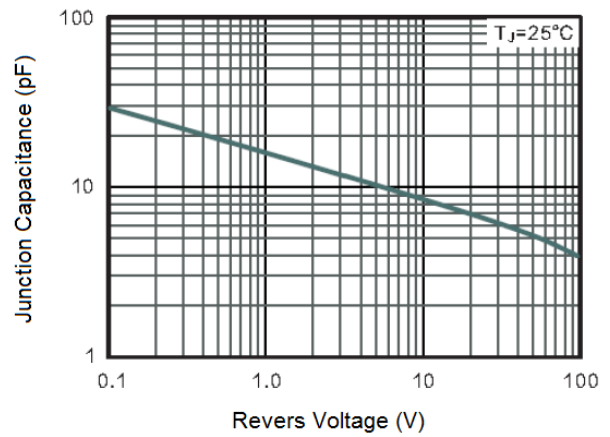
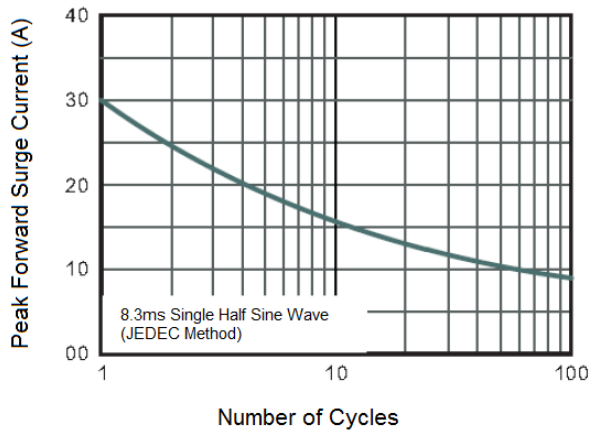


Fig. 5 Maximum Non-Repetitive Peak Forward Surge Current

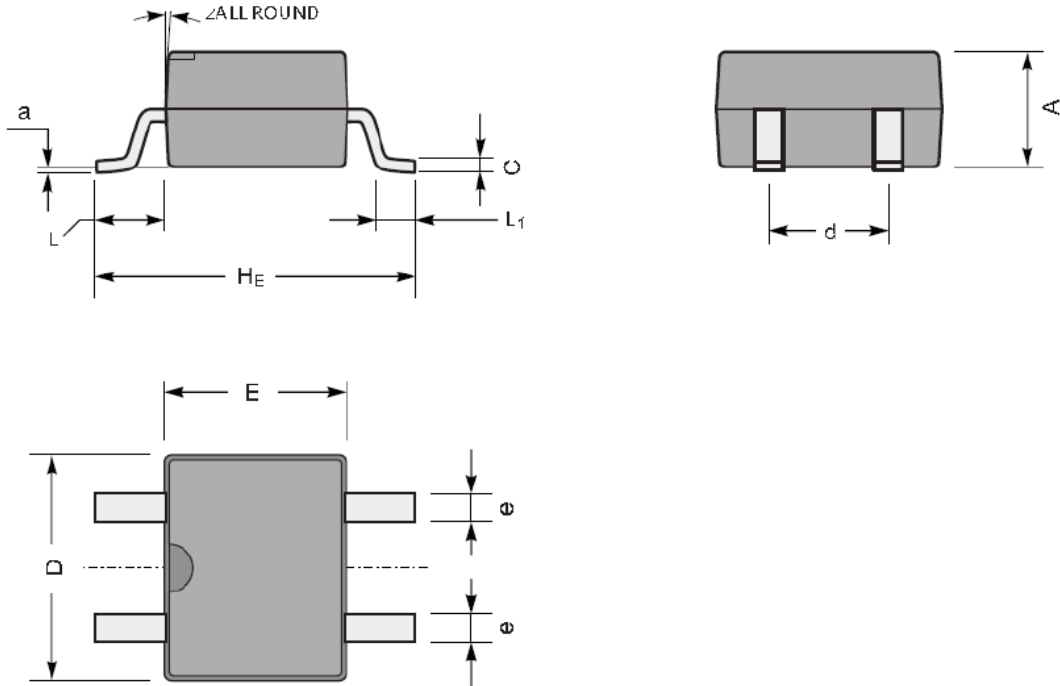




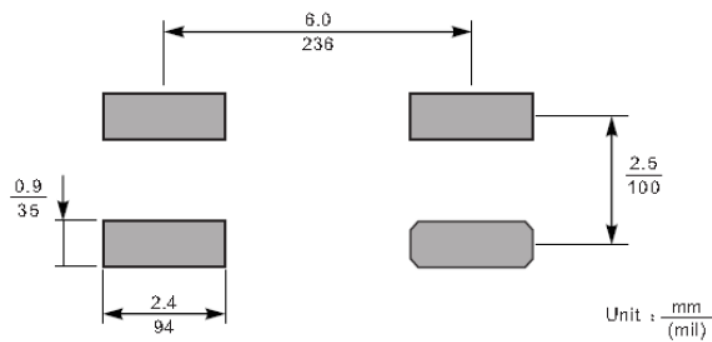
PACKAGE INFORMATION

Dimension in MBS Package (Unit: mm)

Plastic surface mounted package; 4 leads



The recommended mounting pad size



UNIT		A	C	D	E	HE	d	e	L	L ₁	a	∠
mm	max	2.6	0.22	5.0	4.1	7.0	2.7	0.7	1.7	1.1	0.2	7°
	min	2.2	0.15	4.5	3.6	6.4	2.3	0.5	1.3	0.5	-	
mil	max	102	8.7	197	161	276	106	28	67	43	8	
	min	94	5.9	177	142	252	91	20	51	20	-	



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