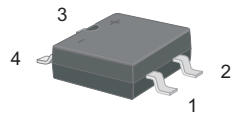
1A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

FEATURES:

Glass Passivated Chip Junction
Reverse Voltage - 100 to 1000 V
Forward Current - 1 A
High Surge Current Capability
Designed for Surface Mount Application

PINNING

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)



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 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	MB1S-10	MB2S-10	MB4S-10	MB6S-10	MB8S-10	MB10S-10	Units
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 @ Fig.1	I_O	1.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	35						A
Peak Forward Surge Current 1.0 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	70						A
I^2t Rating for fusing(3ms≤t≤8.3ms)	I^2t	5.1						A^2S
Maximum Forward Voltage at 1.0 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	5 100						μA
Typical Junction Capacitance (Note1)	C_j	7						pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	45 15 25						°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted on glass epoxy PC board 4X1.5" X 1.5" (3.81 X 3.81 cm) copper pad.

Fig.1 Average Rectified Output Current Derating Curve

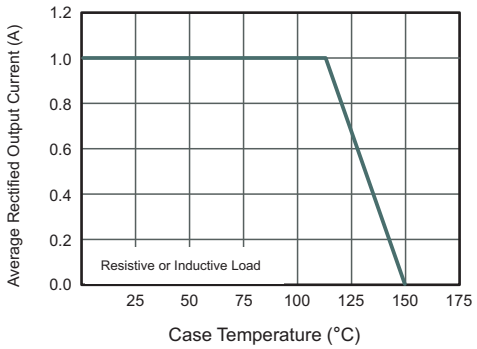


Fig.2 Typical Instaneous Reverse Characteristics

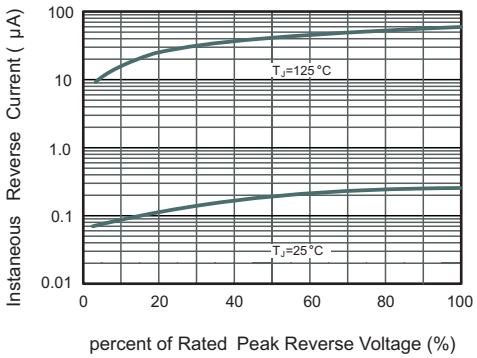


Fig.3 Typical Forward Characteristic

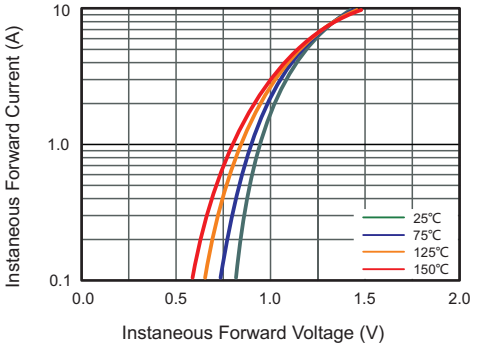


Fig.4 Typical Junction Capacitance

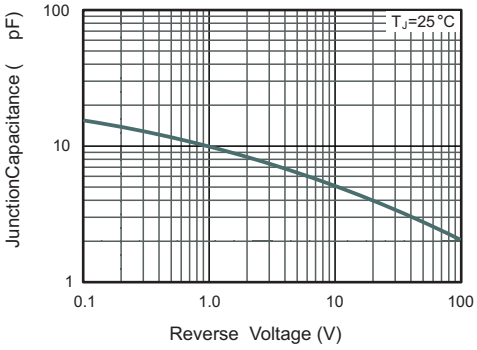
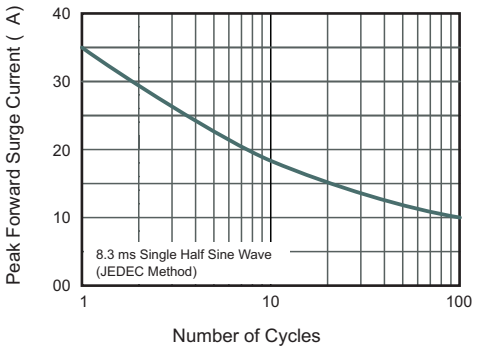
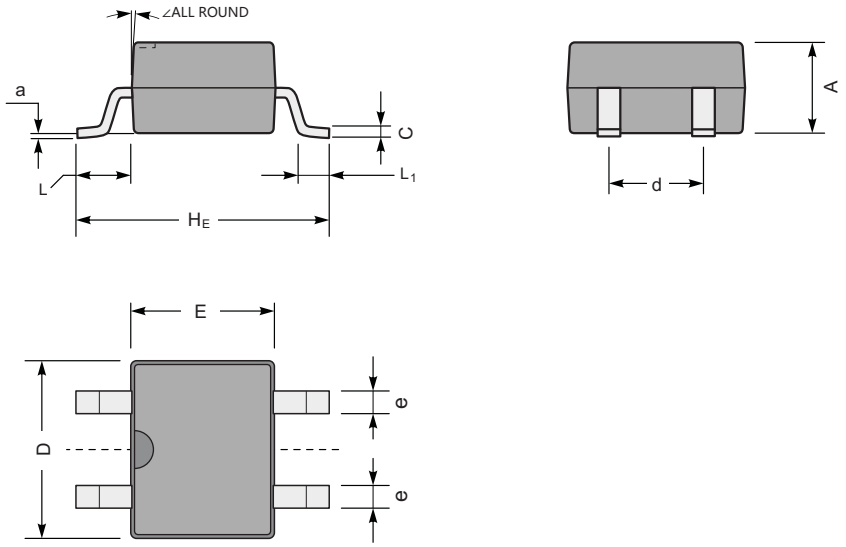


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

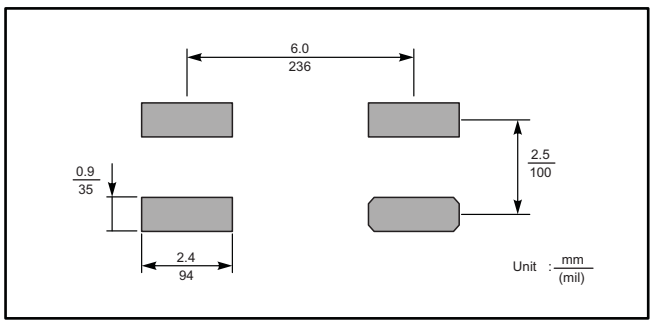
Plastic surface mounted package; 4 leads MBS



MBS mechanical data

UNIT		A	C	D	E	H_E	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	—	

The recommended mounting pad size



Marking

Type number	Marking code
MB1S-10	10S1
MB2S-10	10S2
MB4S-10	10S4
MB6S-10	10S6
MB8S-10	10S8
MB10S-10	10S10

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