

## 1A SURFACE MOUNT SCHOTTKY BRIDGE

### FEATURES:

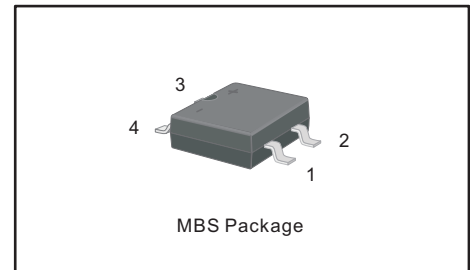
- Reverse Voltage - 40 to 200 V
- Forward Current - 1 A
- High Surge Current Capability
- Designed for Surface Mount Application

### MECHANICAL DATA

- Case: MBS
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 100mg / 0.0035oz

### PINNING

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



### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

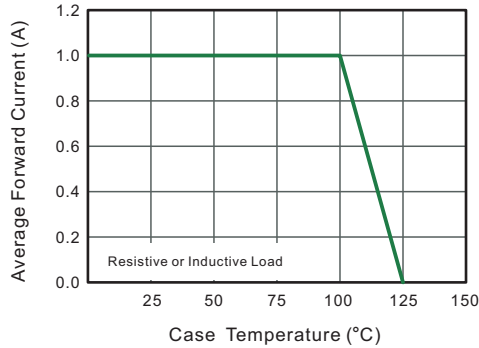
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	MB14S	MB16S	MB18S	MB110S	MB115S	MB120S	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	60	80	100	150	200	V
Maximum RMS voltage	$V_{RMS}$	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current at $T_c = 100^\circ\text{C}$	$I_{F(AV)}$	1.0						A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	40			30			A
Max Instantaneous Forward Voltage at 1 A	$V_F$	0.55	0.70		0.85	0.90		V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	$I_R$	0.3 10			0.2 5	0.1 2		mA
Typical Junction Capacitance <sup>1)</sup>	$C_j$	110	80				pF	
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	100						$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_j$	-55 ~ +125						$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 ~ +150						$^\circ\text{C}$

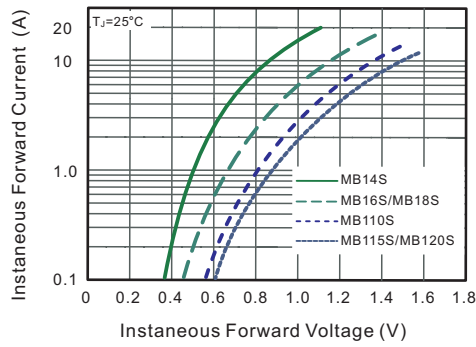
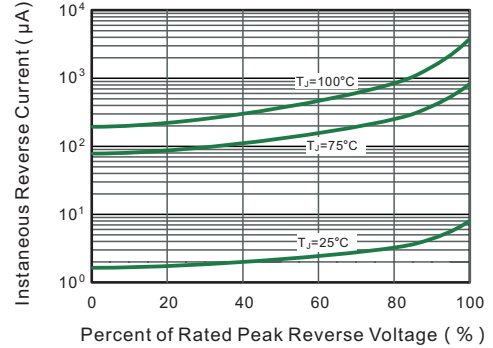
Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 4×1.5"×1.5" ( 3.81×3.81 cm ) copper pad.

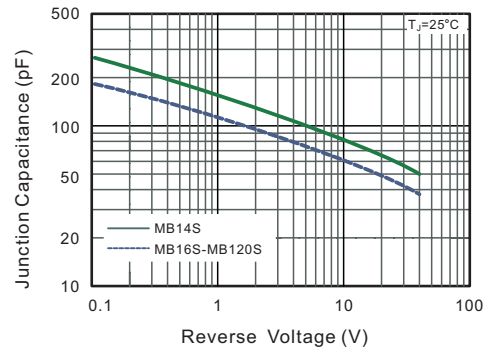
**Fig.1 Forward Current Derating Curve**



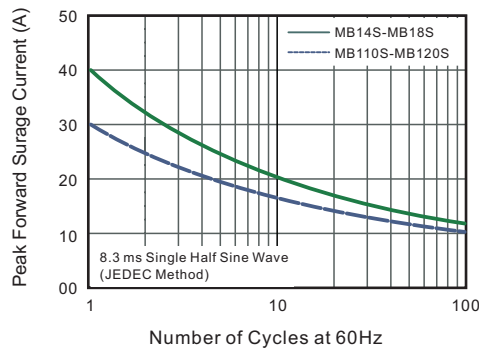
**Fig.2 Typical Reverse Characteristics**



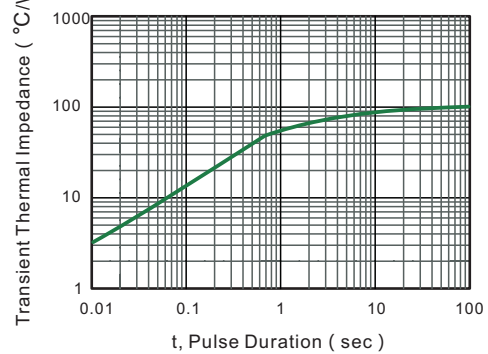
**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



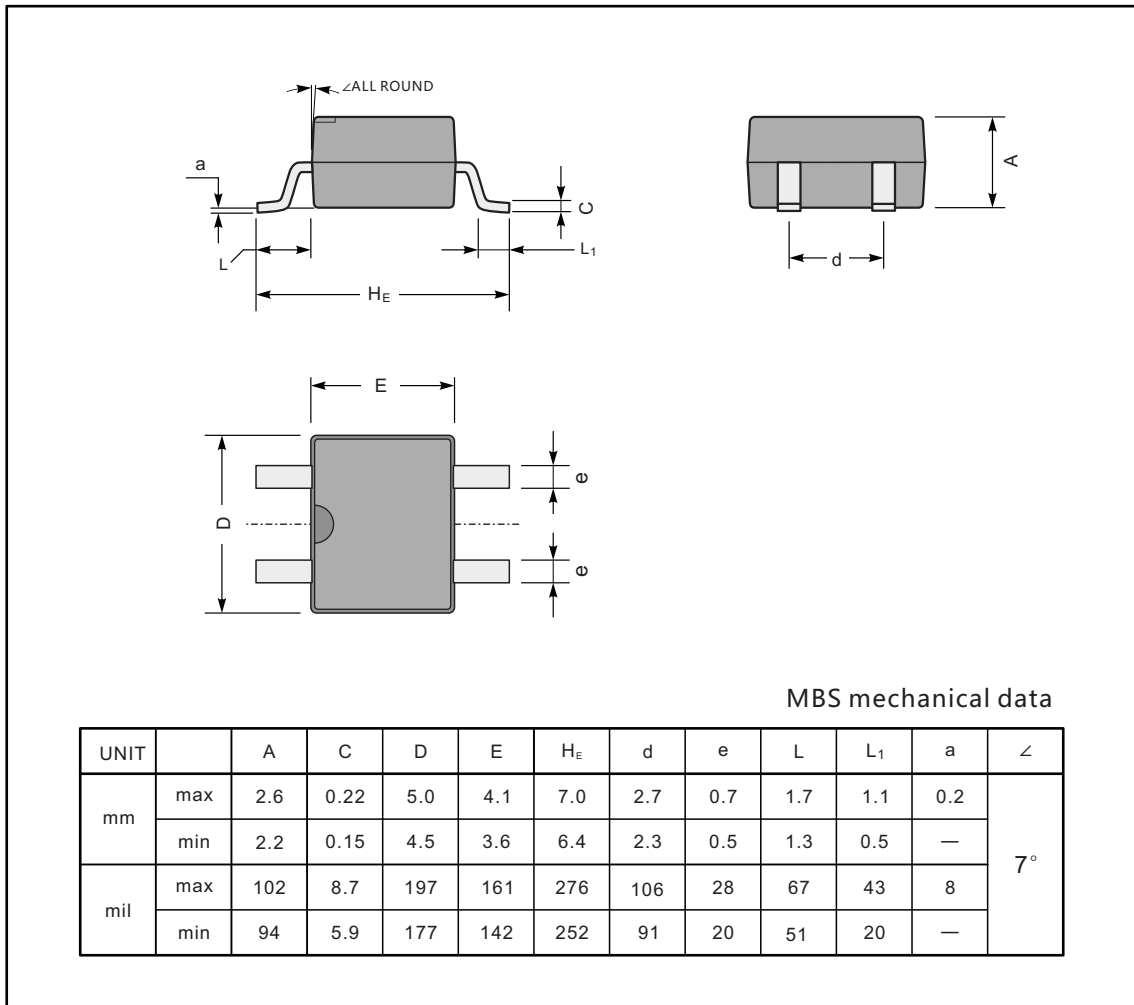
**Fig.6- Typical Transient Thermal Impedance**



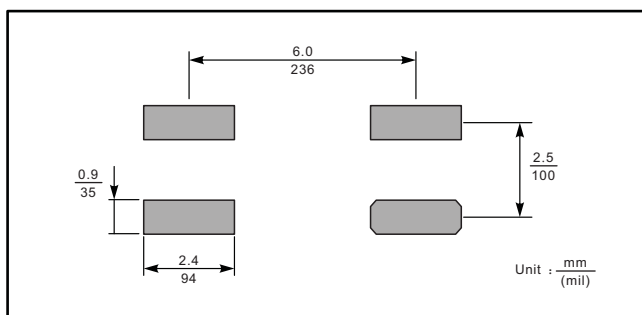
**PACKAGE OUTLINE**

Plastic surface mounted package; 4 leads

MBS



**The recommended mounting pad size**



**Marking**

Type number	Marking code
MB14S	MB14S
MB16S	MB16S
MB18S	MB18S
MB110S	MB110S
MB115S	MB115S
MB120S	MB120S

