

3A SURFACE MOUNT SCHOTTKY BRIDGE

FEATURES:

Reverse Voltage - 40 to 200 V

Forward Current - 3 A

High Surge Current Capability

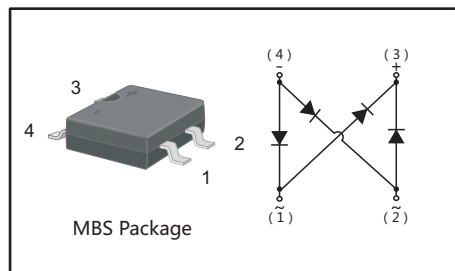
Designed for Surface Mount Application

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	MB34S	MB36S	MB38S	MB310S	MB315S	MB320S	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 @ Fig.1	$I_{F(AV)}$	3.0						A	
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80		70				A	
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	160		140				A	
I^2t Rating for fusing($3ms \leq t \leq 8.3ms$)	I^2t	26.6		20.3				A ² S	
Max Instantaneous Forward Voltage at 3 A	V_F	0.55	0.70	0.85		0.95		V	
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Reverse Voltage $T_a = 100^\circ C$	I_R	0.5	0.3				5	mA	
Typical Junction Capacitance 1)	C_j	135	107	83		41		pF	
Typical Thermal Resistance 2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	45				15		25	°C/W
Operating Junction Temperature Range	T_j	-55 ~ +125						°C	
Storage Temperature Range	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 with $4 \times 1.5'' \times 1.5''$ (3.81×3.81 cm) copper pad.



Fig.1 Forward Current Derating Curve

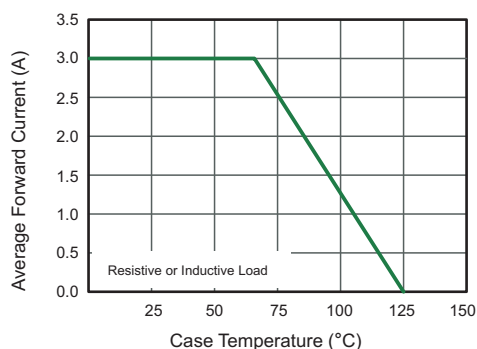


Fig.2 Typical Reverse Characteristics

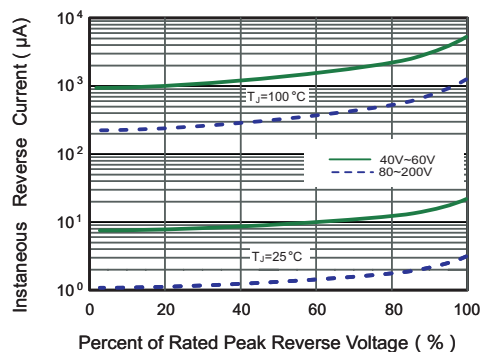


Fig.3 Typical Forward Characteristic

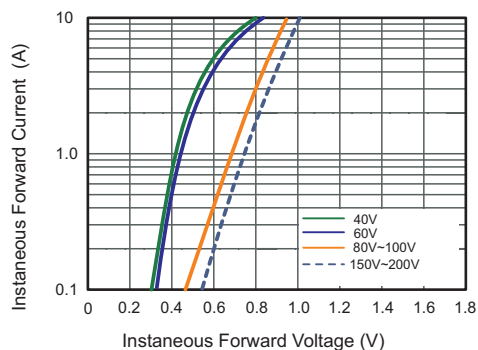


Fig.4 Typical Junction Capacitance

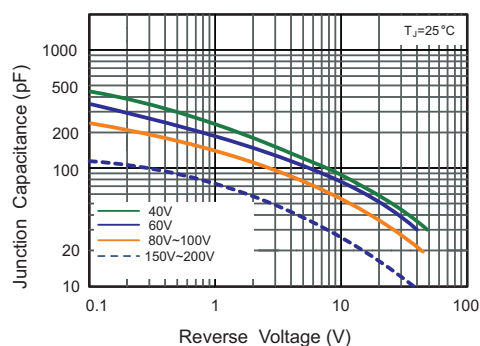
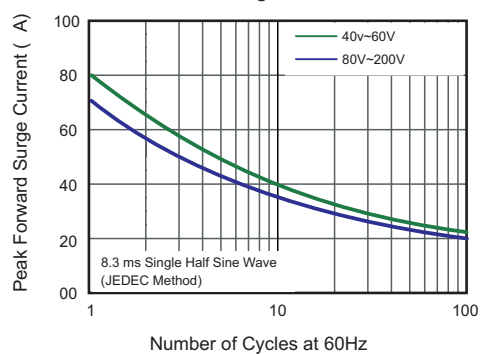


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

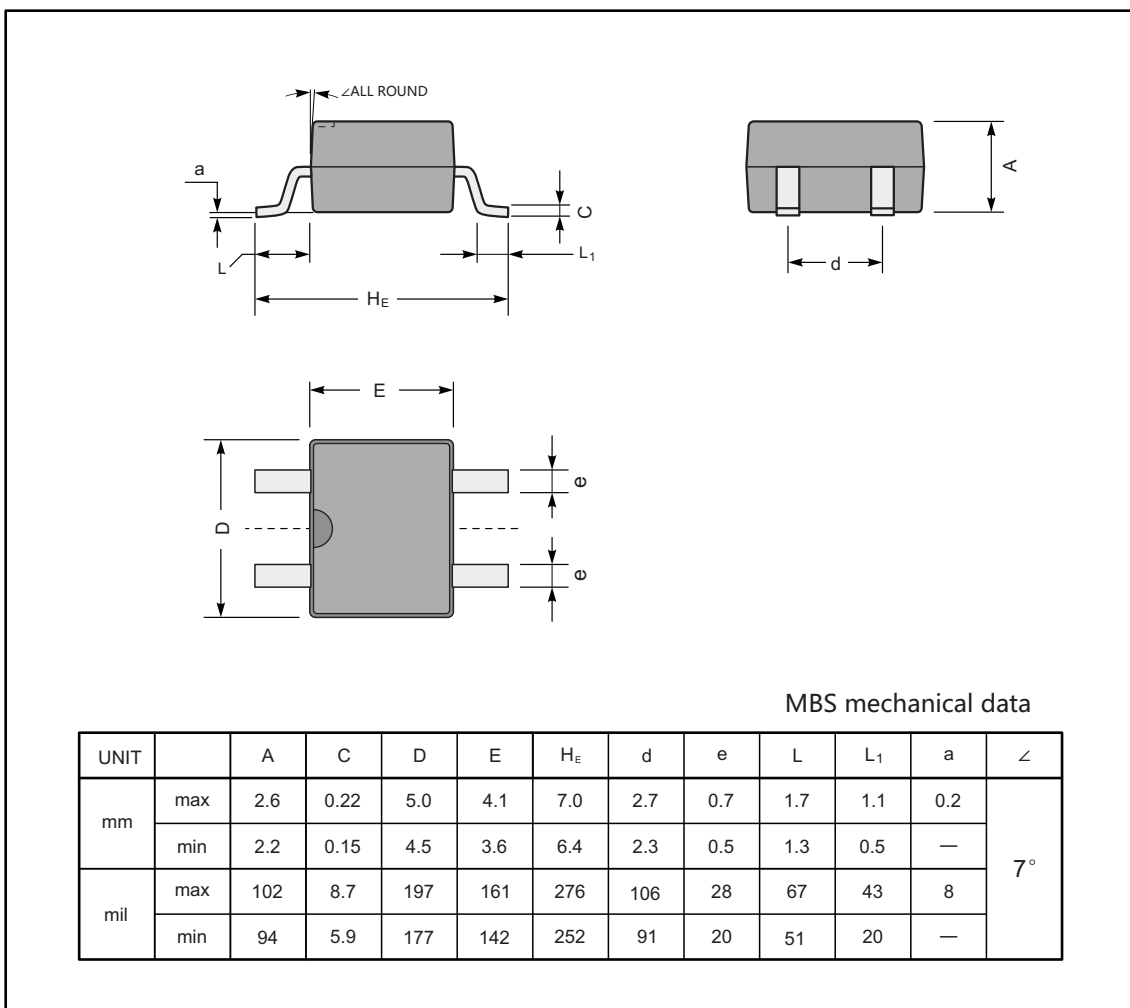




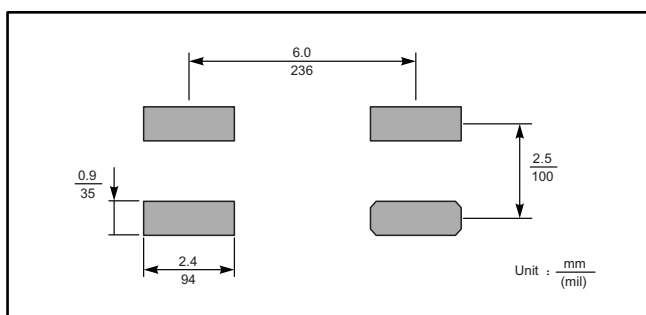
PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

MBS



The recommended mounting pad size



Marking

Type number	Marking code
MB34S	MB34S
MB36S	MB36S
MB38S	MB38S
MB310S	MB310S
MB315S	MB315S
MB320S	MB320S



Important Notice and Disclaimer

Jingdao Microelectronics reserves the right to make changes to this document and its products and specifications at any time without notice.

Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

Jingdao Microelectronics makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Jingdao Microelectronics assume any liability for application assistance or customer product design.

Jingdao Microelectronics does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Jingdao Microelectronics.

Jingdao Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of Jingdao Microelectronics.