



Surface Mount Surge Suppressors Bridge

FEATURES

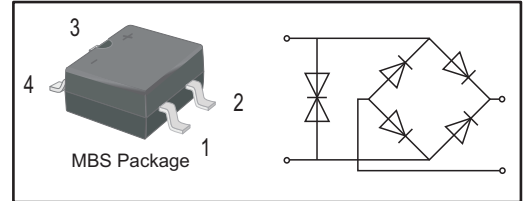
- Green Molding Compound (No Halogen and Antimony)
- Lower clamping voltage
- Glass Passivated Chip Junction
- High Surge Current Capability
- Designed for Surface Mount Application

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 Thermal Characteristics(TA = 25°C unless otherwise specified)

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 of Bridge Rectifier	Symbols	58CMB10S	Units
Average Rectified Output Current	I_O	0.8	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30	A
Maximum Forward Voltage at 0.8A	V_F	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage (@VR=1000V)	I_R	5 40	μ A
Typical Junction Capacitance (f=1MHz,4V DC)	C_j	7	pF
Typical Thermal Resistance (Note1)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	45 15 25	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

Note: 1. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

Parameter of TVS	Symbol	58CMB10S	Unit
Maximum allowable continuous AC voltage at 50-60Hz	V_{RMS}	41	V
Breakdown voltage	V_{BR}	64.4~71.2	V
Maximum allowable continuous DC voltage	V_{DC}	58	V
Maximum allowable clamping voltage	V_C	93.6	V
Maximum peak pulse current	I_{pp}	4.3	A
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

NOTES:

1. The breakdown voltage was measured at 1mA
2. The clamping voltage was measured at 10/1000 μ s standard current
3. The peak pulse current was tested at 10/1000 μ s waveform



Fig.1 Average Rectified Output Current Derating Curve

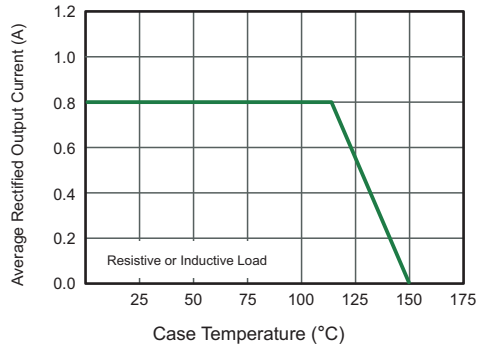


Fig.2 Typical Reverse Characteristics

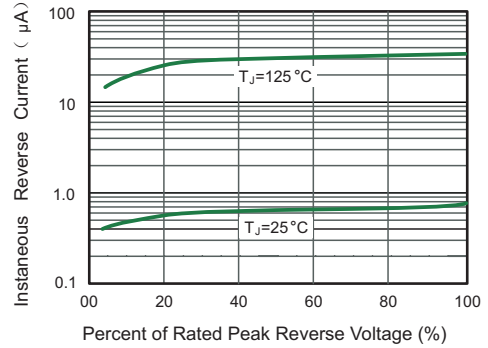


Fig.3 Typical Forward Characteristic

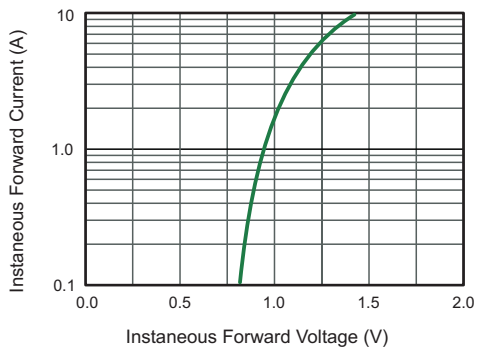


Fig.4 Typical Junction Capacitance

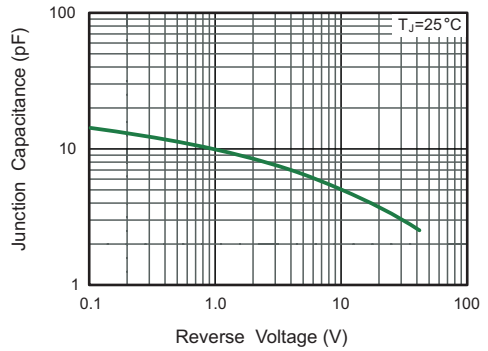


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

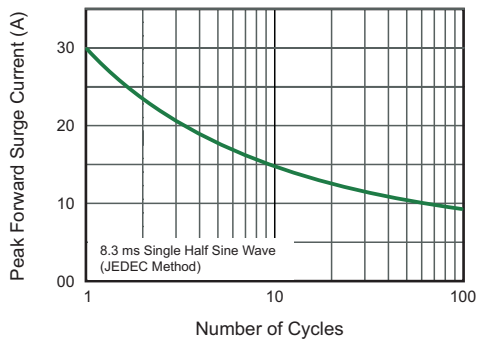


Fig.6 Peak Pulse Power Rating Curve

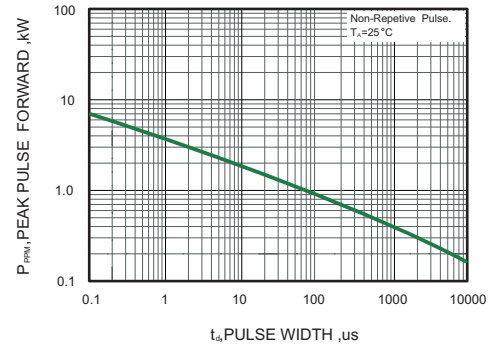


Fig.7 Forward Current Derating Curve

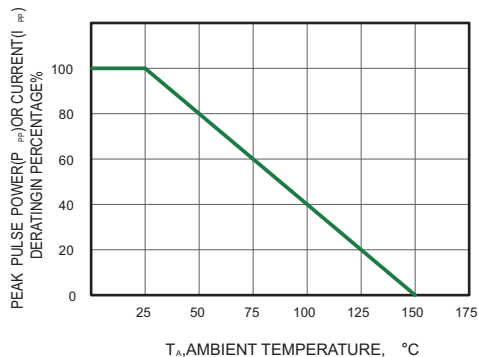
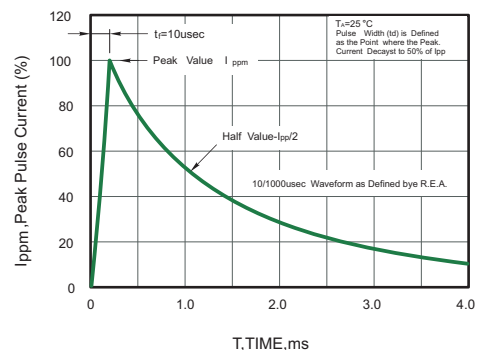


Fig.8 Pulse Waveform

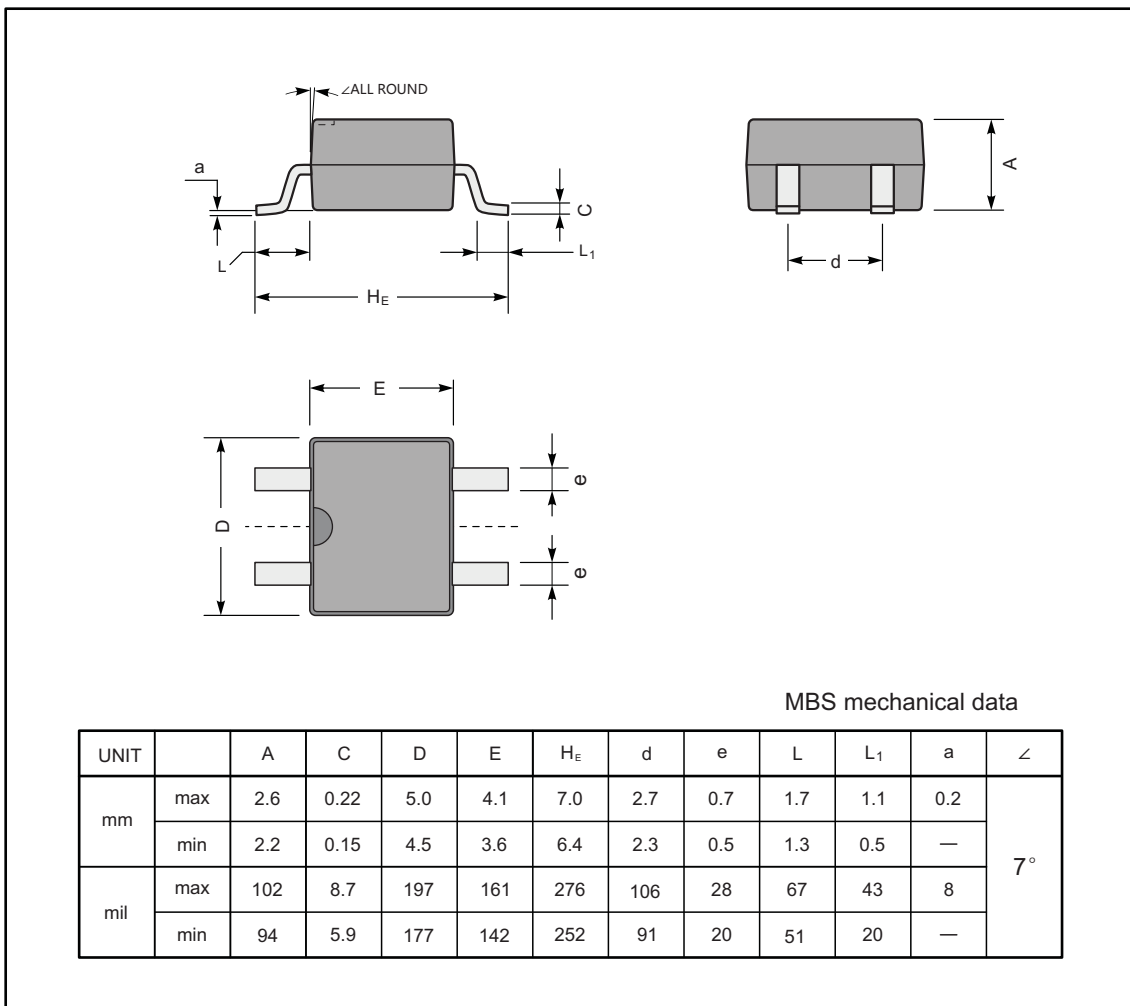




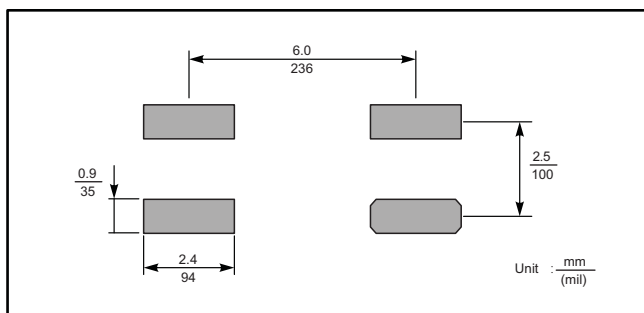
PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

MBS



The recommended mounting pad size



Marking

Type number	Marking code
58CMB10S	58C08



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.