

SURFACE MOUNT SCHOTTKY BRIDGE RECTIFIERS

MB24S-MB220S



PINNING

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

MBS

Surface Mount
Plastic Package

FEATURES

- 1). Reverse Voltage : 40V to 200V
- 2). Forward Current : 2A
- 3). High Surge Current Capability
- 4). Designed for Surface Mount Application
- 5). Terminals Solder Plated : Solderable as per MIL-STD-750, Method 2026
- 6). Polarity Symbol marking on Plastic Body
- 7). Weight : 0.1gm (approx.)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at $T_A=25^\circ\text{C}$ Ambient Temperature unless otherwise specified.)

Single Phase, Half Wave, 60Hz, Resistive or Inductive Load. For Capacitive Load, Derate Current by 20%.

CHARACTERISTICS	SYMBOL	MB24S	MB26S	MB28S	MB210S	MB220S	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	60	80	100	200	V
Maximum RMS Voltage	V_{RMS}	28	42	56	70	140	V
Maximum DC Blocking Voltage	V_{DC}	40	60	80	100	200	V
Maximum Average Forward Rectified Current at $T_C=100^\circ\text{C}$	$I_{(AV)}$	2.0					A
Peak Forward Surge Current 8.3ms Single Half Sine -Wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50		40			A
Maximum Instantaneous Forward Voltage at 2A	V_F	0.55	0.70	0.85			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	0.5			0.3		mA
	$T_A=100^\circ\text{C}$	10			5		
Typical Junction Capacitance (Note 1)	C_j	220	80				pF
Typical Thermal Resistance (Note 2)	$R_{\theta J-A}$	75					$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_J, T_{stg}	-55 to +150					$^\circ\text{C}$

Note 1. Measured at 1MHz and Applied Reverse Voltage of 4.0V DC

Note 2. Mounted on Glass Epoxy PC Board with 4*1.5*1.5" (3.81*3.81cm) Copper pad

CHARACTERISTICS CURVES

Fig.1 Forward Current Derating Curve

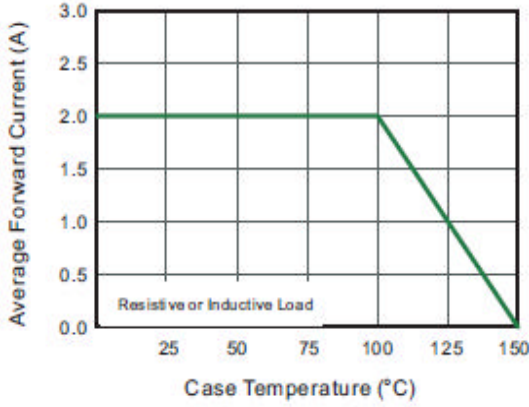


Fig.2 Typical Reverse Characteristics

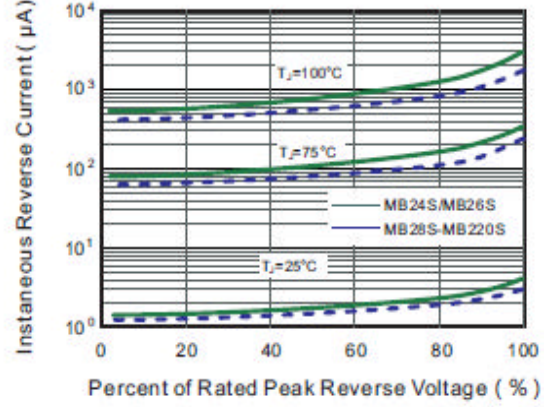


Fig.3 Typical Forward Characteristic

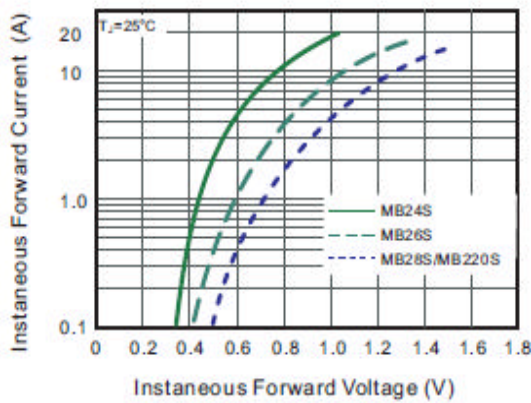


Fig.4 Typical Junction Capacitance

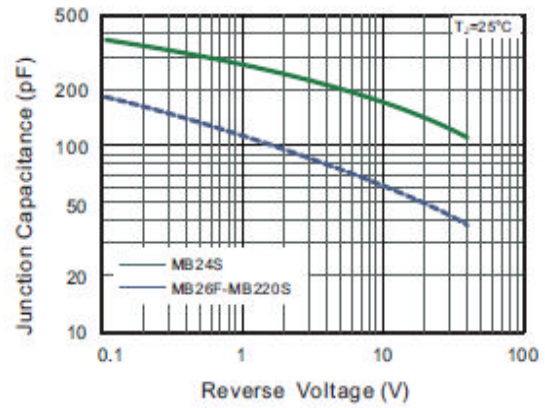


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

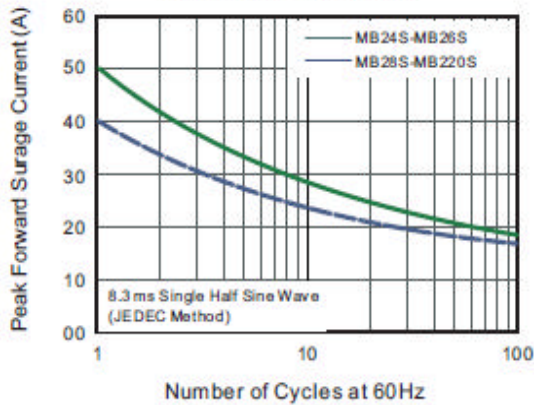
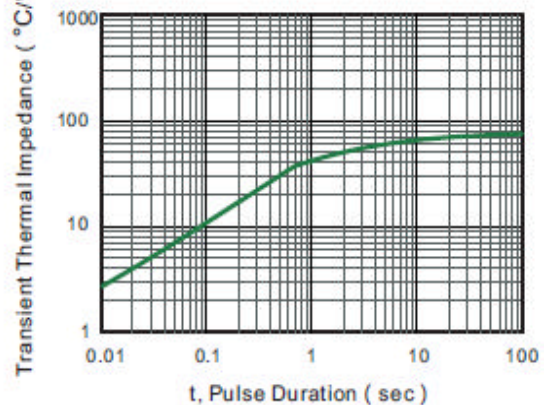
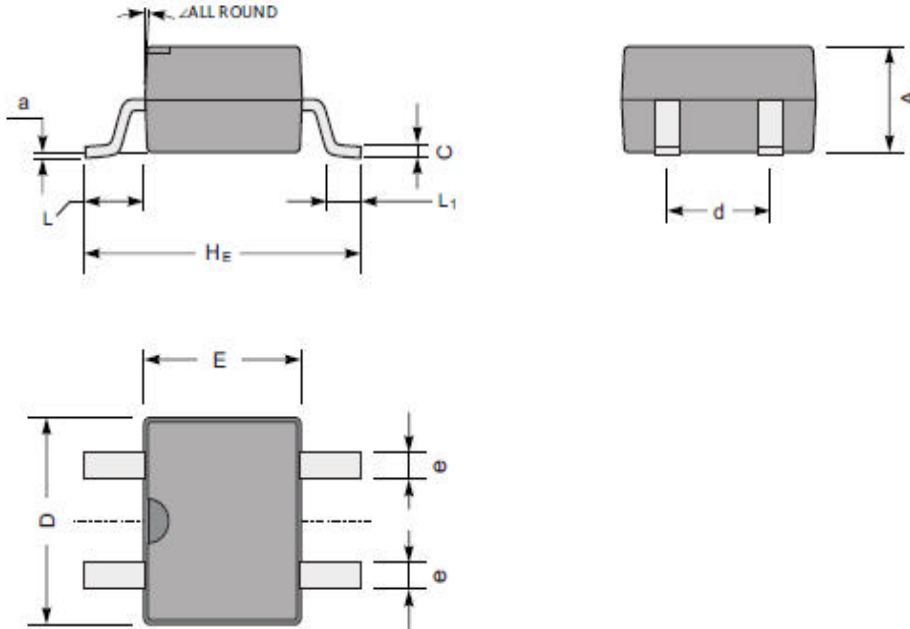


Fig.6 Typical Transient Thermal Impedance



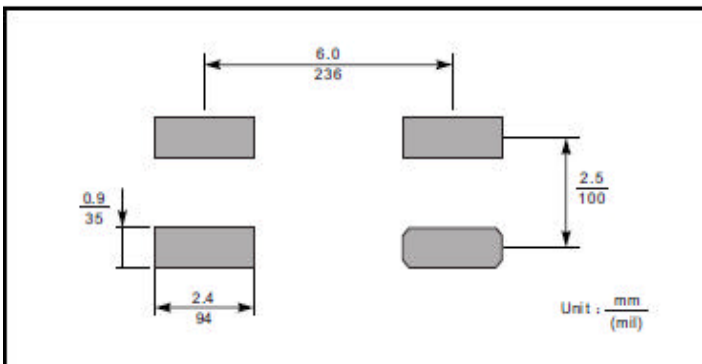
MBS PACKAGE OUTLINE AND DIMENSION



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
MB24S	MB24S
MB26S	MB26S
MB28S	MB28S
MB210S	MB210S
MB220S	MB220S





Continental Device India Pvt. Limited

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Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

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CIN No. - U32109DL1964PLC004291