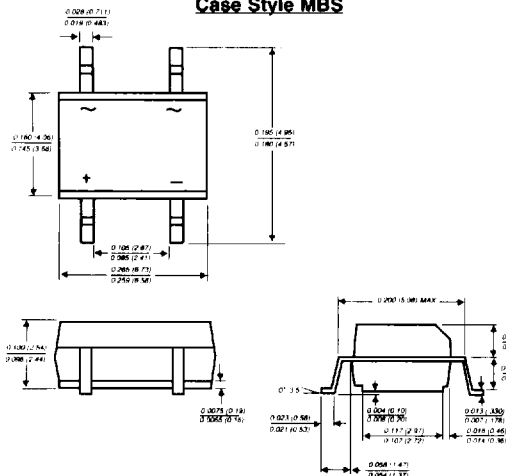


MB2S THRU MB6S

MINIATURE GLASS PASSIVATED SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

Reverse Voltage - 200 to 600 Volts Forward Current - 0.5 Ampere

Case Style MBS



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ This series is UL recognized under Component Index, file number E54214
- ◆ Glass passivated chip junctions
- ◆ High surge overload rating: 35A peak
- ◆ Saves space on printed circuit boards
- ◆ High temperature soldering guaranteed:
260°C/10 seconds at 5 lbs. (2.3kg) tension



MECHANICAL DATA

Case: Molded plastic body over passivated junctions

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on body

Mounting Position: Any

Weight: 0.0078 ounce, 0.22 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	MB2S	MB4S	MB6S	UNITS
Device marking code		2	4	6	
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	Volts
Maximum RMS voltage	V_{RMS}	140	280	420	Volts
Maximum DC blocking voltage	V_{DC}	200	400	600	Volts
Maximum average forward output rectified current at $T_A=30^\circ\text{C}$ - on glass-epoxy P.C.B. (NOTE 1) - on aluminum substrate (NOTE 2)	$I_{(AV)}$	0.5 0.8			Amp
Peak forward surge current 8.3msec single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	35.0			Amps
Rating for fusing ($t < 8.3\text{ms}$)	I^2t	5.0			A ² sec
Maximum instantaneous forward voltage drop per leg at 0.4A	V_F	1.0			Volts
Maximum DC reverse current at rated DC blocking voltage per leg $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	5.0 500			μA
Typical junction capacitance per leg (NOTE 3)	C_J	13.0			pF
Typical thermal resistance per leg (NOTE 1) (NOTE 1) (NOTE 2)	$R_{\theta JA}$ $R_{\theta JA}$ $R_{\theta JL}$	85.0 70.0 20.0			$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150			$^\circ\text{C}$

NOTES:

(1) On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads

(2) On aluminum substrate P.C.B. with an area of 0.8 x 0.8 x 0.25" (2.0 x 2.0 x 0.64mm) mounted on 0.05 x 0.05" (1.2 x 1.2mm) solder pad

(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

RATINGS AND CHARACTERISTIC CURVES MB2S THRU MB6S

FIG. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

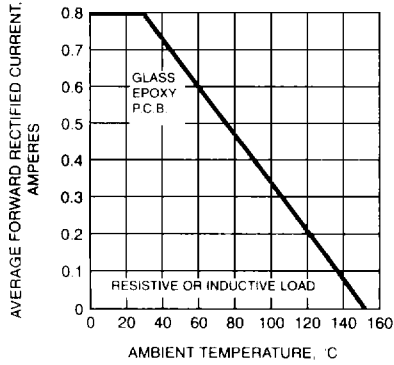


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

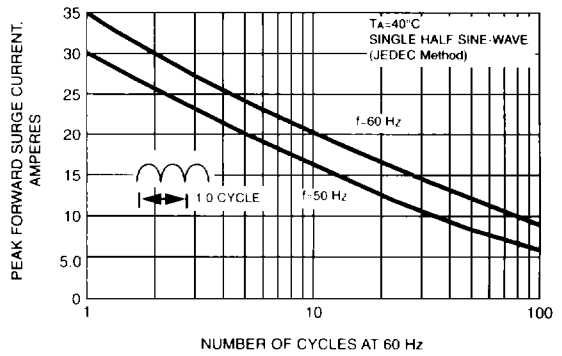


FIG. 3 - TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG

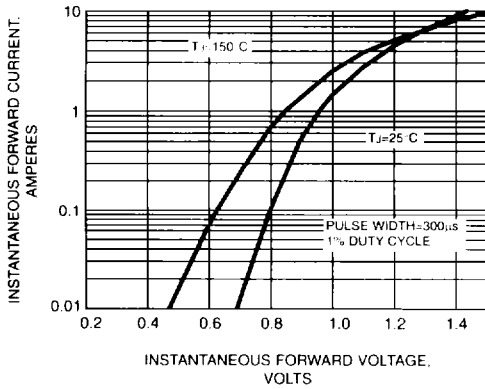


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

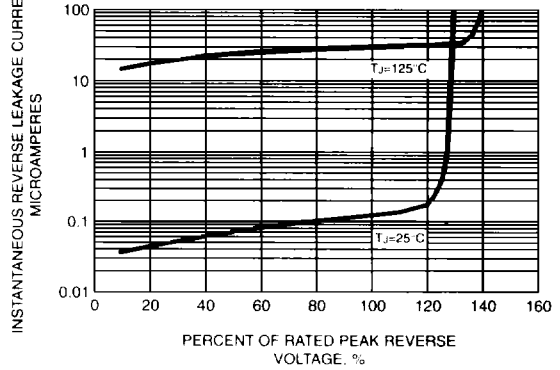


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

