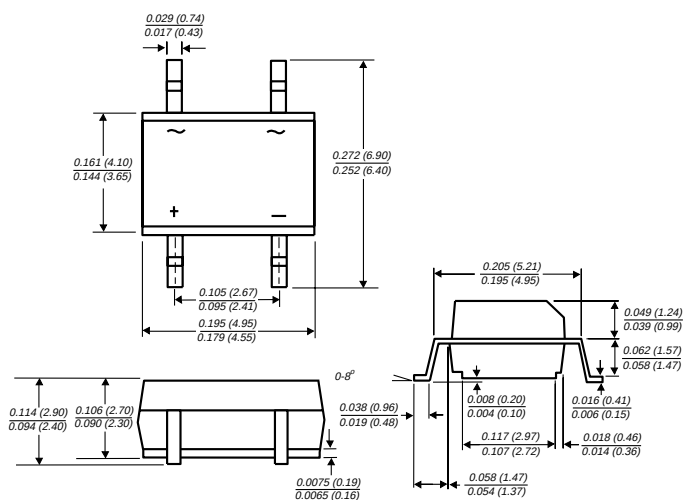


MB2S THRU MB6S

MINIATURE GLASS PASSIVATED SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

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

TO-269AA



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°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<8.3ms)	I ² t	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°C T _A =125°C	I _R	5.0 100			μA
Typical junction capacitance per leg (NOTE 3)	C _J	13.0			pF
Typical thermal resistance per leg (NOTE 1) (NOTE 2) (NOTE 1)	R _{θJA} R _{θJA} R _{θJL}	85.0 70.0 20.0			°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150			°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" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) 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

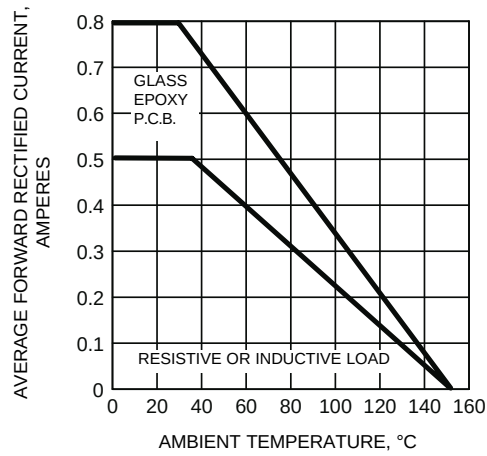


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

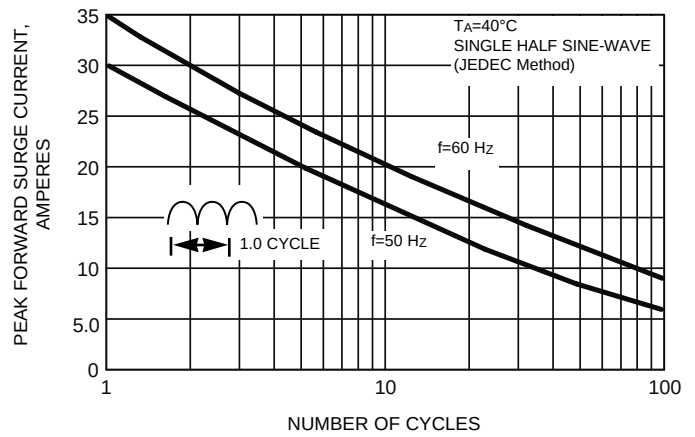


FIG. 3 - TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG

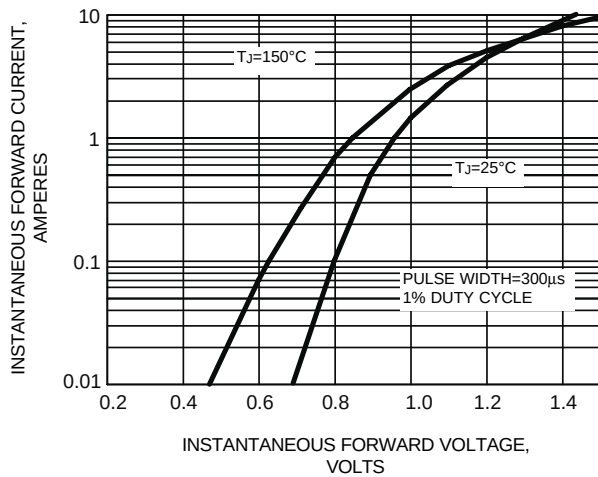


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

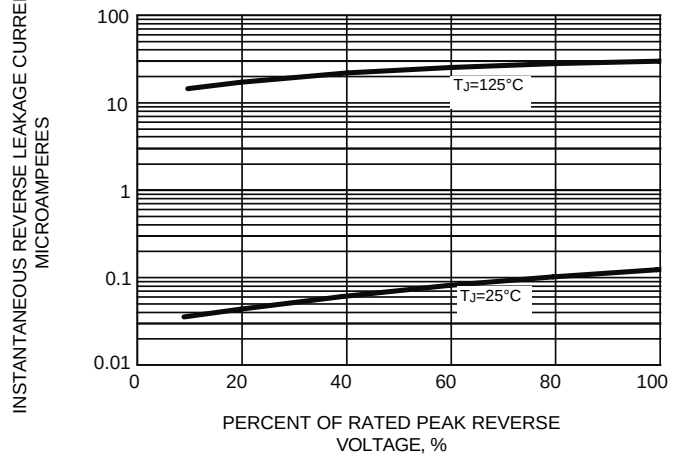


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

