



# THE DATASHEET OF MB6S

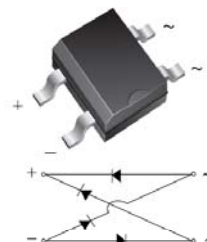


## Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifier

Reverse Voltage 200 to 1000 Volts Forward Current 0.5 Ampere

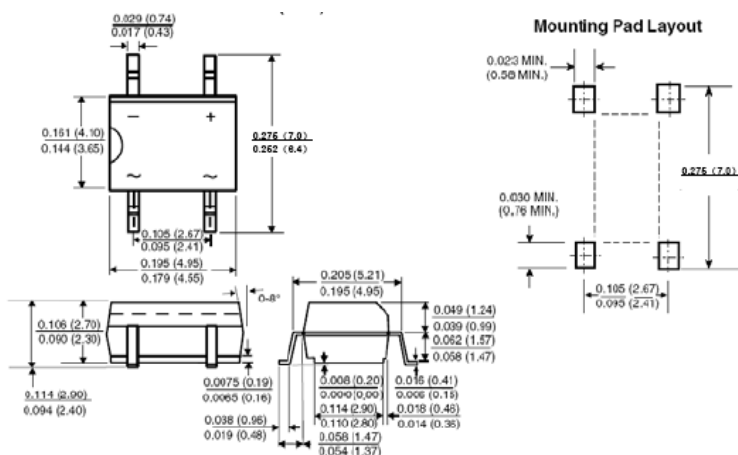
### Features

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junctions
- ◆ High surge overload rating:35A peak
- ◆ Saves space on printed circuit boards
- ◆ High temperature soldering guaranteed:260°C/10 seconds



### Mechanical Data

- ◆ Case:Molded plastic body over passivated junctions
- ◆ Terminals: plated leads solderable per MIL-STD-750, Method 2026
- ◆ Mounting Position:Any
- ◆ Weight:0.078 oz.,0.22g



### Maximum Ratings & Electrical Characteristics

(T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	MB2S	MB4S	MB6S	MB8S	MB10S	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	200	400	600	800	1000	V
Maximum Average forward output current (see Fig.1) on glass-epoxy P.C.B on aluminum substrate	I <sub>F(AV)</sub>			0.5 <sup>(1)</sup> 0.8 <sup>(2)</sup>			A
Peak forward surge current 8.3 MS single HALF sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>			35			A
Rating for fusig (t<8.3ms)	I <sup>2</sup> t			5			A <sup>2</sup> sec
Maximum instantaneous forward voltage drop per leg at 0.4A	V <sub>F</sub>			1.00			V
Maximum DC reverse current at rated DC blocking voltage per leg	I <sub>R</sub>			5 100			μA
Typical thermal resistance per leg	R <sub>θJA</sub>			85 <sup>(1)</sup>			°C/W
	R <sub>θJA</sub>			70 <sup>(2)</sup>			
	R <sub>θJL</sub>			20 <sup>(1)</sup>			
Typical junction capacitance per at 4.0V,1.0MHz	C <sub>j</sub>			13			pF
Operating junction and storage temperature range	T <sub>J</sub> ,T <sub>STG</sub>			-55 to +150			°C

**Notes:** 1. On glass epoxy P.C.B. mounted on 0.05×0.05"(1.3×1.3mm) pads

2. On aluminum substrate P.C.B.whth an area of 0.8×0.8" (20×20mm) mounted on 0.05×0.05"(1.3×1.3mm) solder pad

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

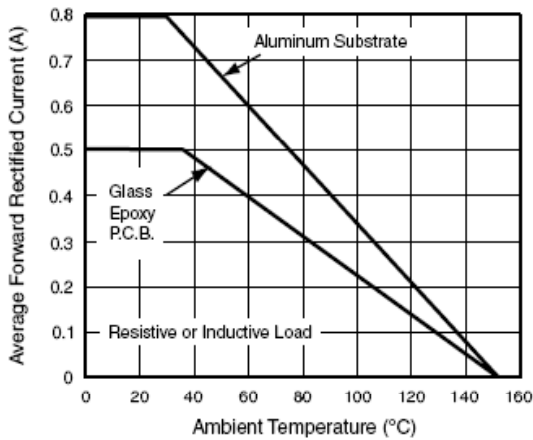


Figure 1. Derating Curve for Output Rectified Current

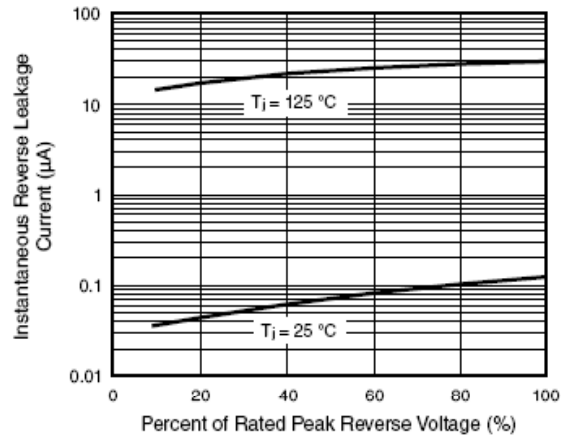


Figure 4. Typical Reverse Leakage Characteristics Per Leg

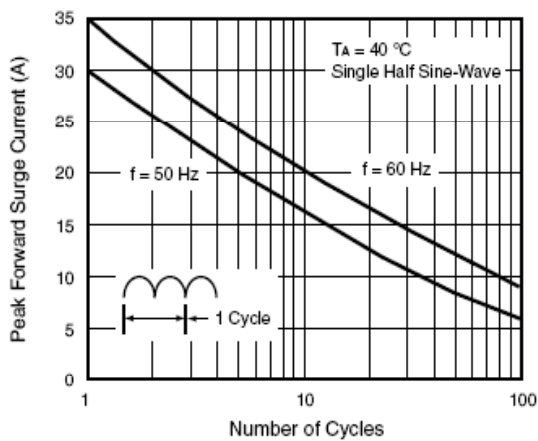


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

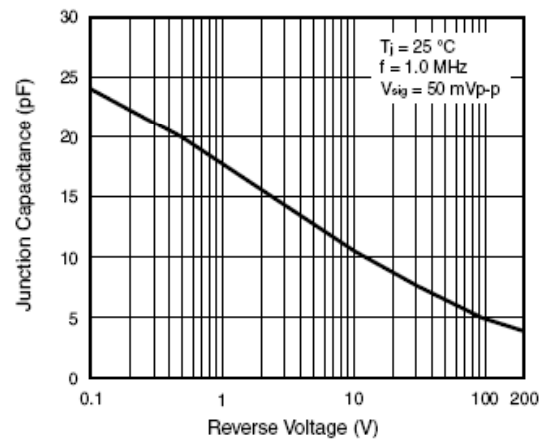


Figure 5. Typical Junction Capacitance Per Leg

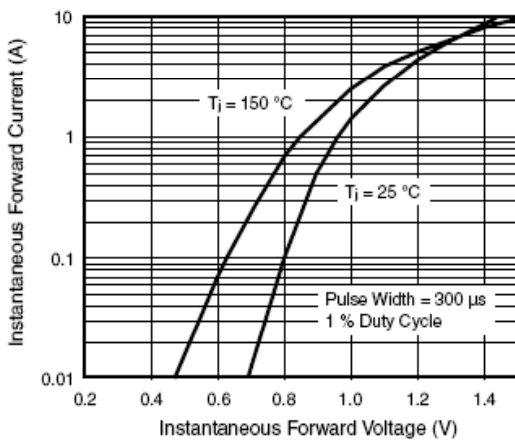


Figure 3. Typical Forward Voltage Characteristics Per Leg

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