

Pb Free Plating Product

MB05S thru MB13S



0.8 Amp Surface Mount Single Phase Bridge Rectifiers

Features

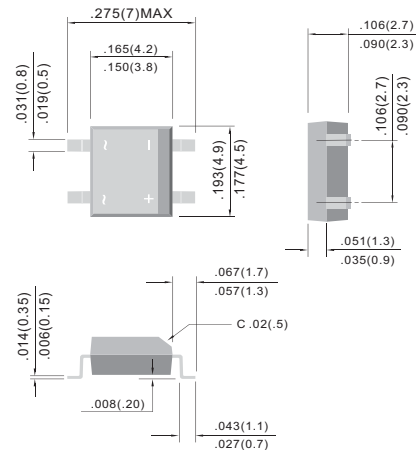
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junctions
- ◆ High surge overload rating: 35A peak
- ◆ Saves space on printed circuit boards
- ◆ High temperature soldering guaranteed: 260°C/10 seconds.

Maximum Ratings

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

MDS

Unit: inch(mm)



Maximum Ratings and Electrical Characteristics

(T_A = 25°C unless otherwise noted)

Parameter	Symbols	MB05S	MB2S	MB4S	MB6S	MB8S	MB10S	MB13S	Units
Maximum repetitive peak reverse voltage	V _{RRM}	50	200	400	600	800	1000	1300	Volts
Maximum RMS voltage	V _{RMS}	35	140	280	420	560	700	910	Volts
Maximum DC blocking voltage	V _{DC}	50	200	400	600	800	1000	1300	Volts
Maximum average forward output rectified current (see Fig.1) on glass-epoxy P.C.B. on aluminum substrate	I _{F(AV)}	0.5 ⁽¹⁾ 0.8 ⁽²⁾							Amp
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	35.0							Amps
Rating for fusing (t < 8.3ms)	Pt	5.0							A ² sec
Maximum instantaneous forward voltage drop per leg at 0.4A	V _F	1.0							Volt
Maximum DC reverse current at rated DC blocking voltage per leg T _A = 25°C T _A = 125°C	I _R	5.0 100							uA
Typical thermal resistance per leg	R _{θJA} R _{θJA} R _{θJL}	85 ⁽¹⁾ 70 ⁽²⁾ 20 ⁽¹⁾							°C/W
Typical junction capacitance per leg at 4.0V, 1.0MHz	C _J	13							pF
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

RATINGS AND CHARACTERISTIC CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

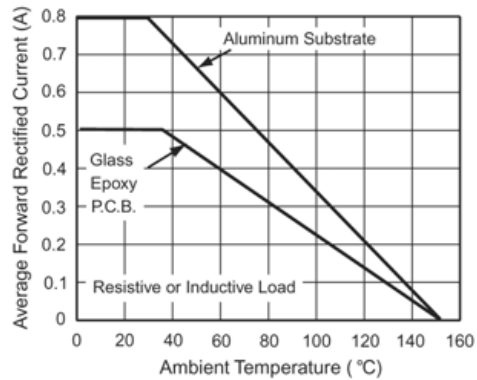


Figure 1. Derating Curve for Output Rectified Current

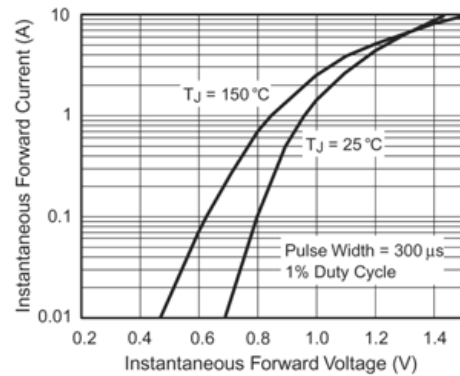


Figure 3. Typical Forward Voltage Characteristics Per Leg

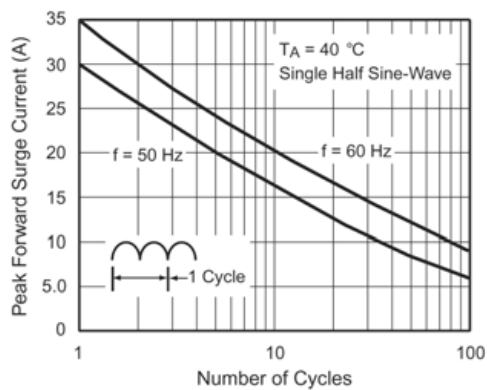


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

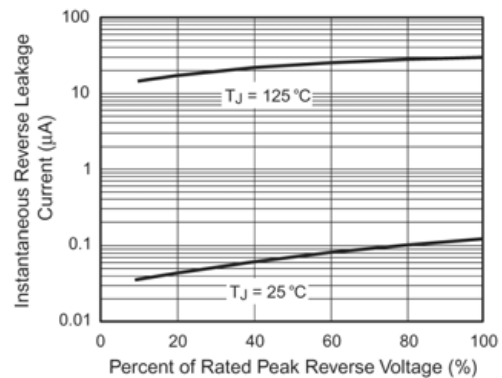


Figure 4. Typical Reverse Leakage Characteristics Per Leg

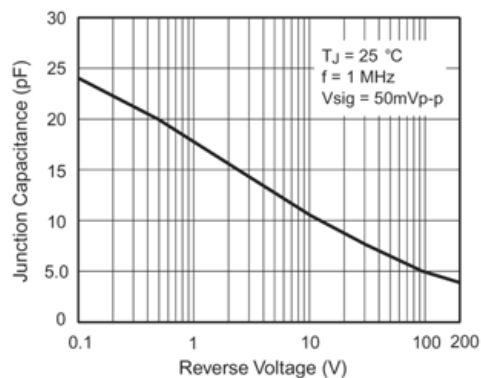


Figure 5. Typical Junction Capacitance Per Leg