Pb Free Plating Product

MB05S thru MB13S

0.8 Amp Surface Mount Single Phase Bridge Rectifiers

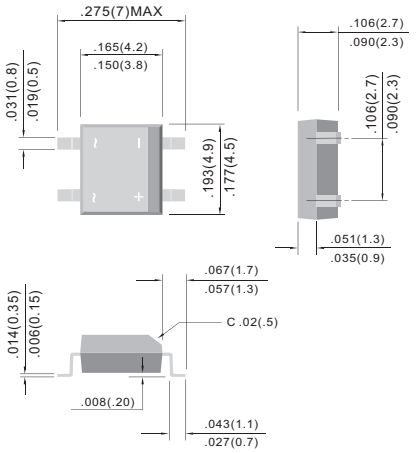
Features

- 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)	I^2t	5.0							A^2sec
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	$R_{\theta JA}$ $R_{\theta JA}$ $R_{\theta JL}$	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°C unless otherwise noted)

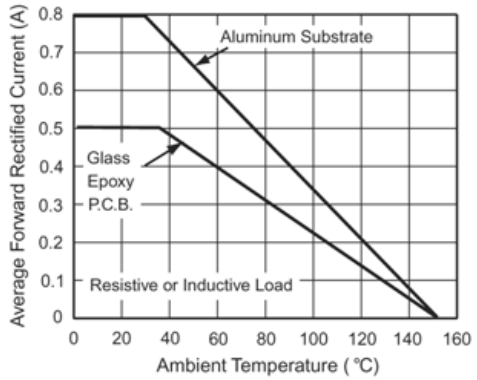


Figure 1. Derating Curve for Output Rectified Current

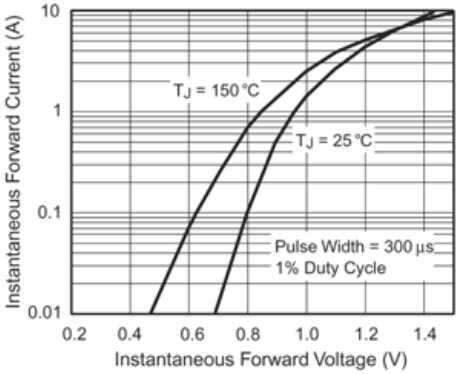


Figure 3. Typical Forward Voltage Characteristics Per Leg

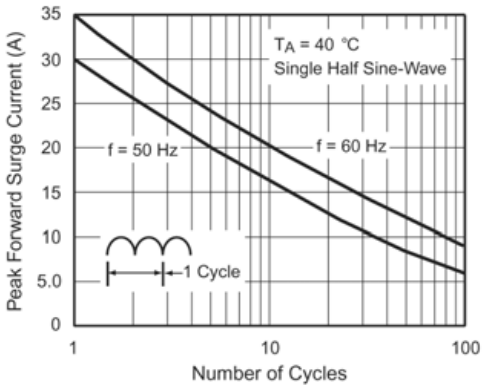


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

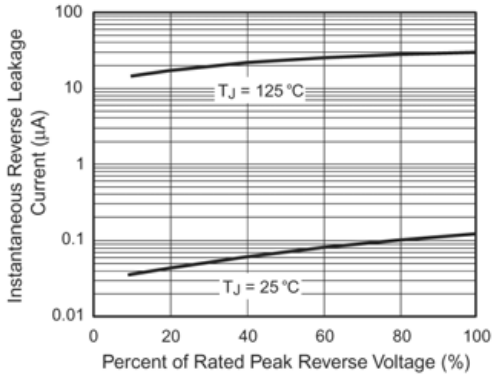


Figure 4. Typical Reverse Leakage Characteristics Per Leg

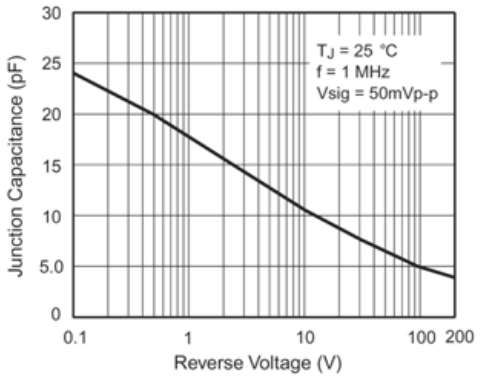


Figure 5. Typical Junction Capacitance Per Leg