

MB10S Bridge Rectifier

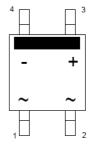
July 2010

Features

- · Low leakage
- · Surge overload rating: 35 amperes peak.
- · Ideal for printed circuit board.
- UL certified, UL #E111753 and E326243.







Absolute Maximum Ratings * $T_A = 25$ °C unless otherwise noted

Symbol	Parameter	Value	Units
V _{RRM}	Maximum Repetitive Reverse Voltage	1000	V
V _{RMS}	Maximum RMS Bridge Input Voltage	700	V
V_{R}	DC Reverse Voltage (Rated V _R)	1000	V
I _{F(AV)}	Average Rectified Forward Current, @ T _A = 50°C On Glass-epoxy P.C.B. On Aluminum substrate	0.5 0.8	Α
I _{FSM}	Non-Repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	35	Α
T _{STG}	Storage Temperature Range	-55 to +150	°C
T _J	Operating Junction Temperature	-55 to +150	°C

^{*} These ratings are limiting values above which the serviceability of any semiconductor device may by impaired.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_{D}	Power Dissipation	1.4	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,* per leg	85	°C/W
$R_{ heta JL}$	Thermal Resistance, Junction to Lead,* per leg	20	°C/W

^{*} Device mounted on PCB with 0.5" x 0.5" (13 x 13 mm) lead length

Electrical Characteristics T_A = 25°C unless otherwise noted

Symbol	Parameter		Value	Units
V _F	Forward Voltage, per bridge @ 0.5 A		1.0	V
I _R		= 25°C = 125°C	5.0 0.5	μA mA
	I^2 t rating for fusing t < 8.3 ms		5.0	A ² s
C _T	Total Capacitance, per leg $V_R = 4.0V$, $f = 1.0MHz$		13	pF

Typical Performance Characteristics

Figure 1. Derating Curve For Output Rectified Current

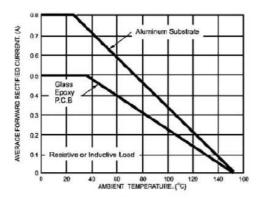


Figure 3. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

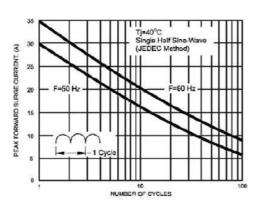


Figure 5. Typical Forward Voltage Characteristics Per Leg

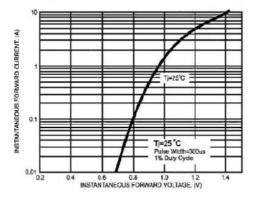


Figure 2. Typical Reverse Leakage Characteristics Per Leg

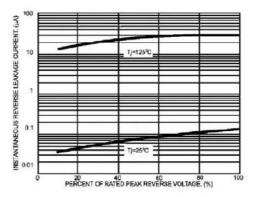
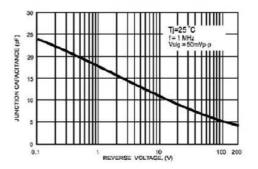


Figure 4. Typical Junction Capacitance Per Leg







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Definition of Terms				
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