

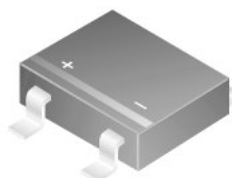


May 2009

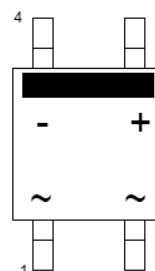
MB1S - MB8S Bridge Rectifiers

Features

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



SOIC-4
Polarity symbols molded or marking on body



Absolute Maximum Ratings * $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value					Units
		1S	2S	4S	6S	8S	
V_{RRM}	Maximum Repetitive Reverse Voltage	100	200	400	600	800	V
V_{RMS}	Maximum RMS Bridge Input Voltage	70	140	280	420	560	V
V_R	DC Reverse Voltage (Rated V_R)	100	200	400	600	800	V
$I_{F(AV)}$	Average Rectified Forward Current @ $T_A = 50^\circ\text{C}$	0.5					A
I_{FSM}	Non-Repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	35					A
T_{STG}	Storage Temperature Range	-55 to +150					$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +150					$^\circ\text{C}$

* These ratings are limiting values above which the serviceability of any semiconductor device may be 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	$^\circ\text{C}/\text{W}$
$R_{\theta JL}$	Thermal Resistance, Junction to Lead,* per leg	20	$^\circ\text{C}/\text{W}$

* Device mounted on PCB with 0.5-0.5" (13x13 mm) lead length.

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_F	Forward Voltage, per bridge @ 0.5 A	1.0	V
I_R	Reverse Current, per leg @ Rated V_R	$T_A = 25^\circ\text{C}$ 5.0 $T_A = 125^\circ\text{C}$ 0.5	μA mA
	I^2t rating for fusing $t < 8.3$ ms	5.0	A^2s
C_T	Total Capacitance, per leg $V_R = 4.0\text{V}$, $f = 1.0\text{MHz}$	13	pF

Typical Performance Characteristics

Figure 1. Forward Current Derating Curve

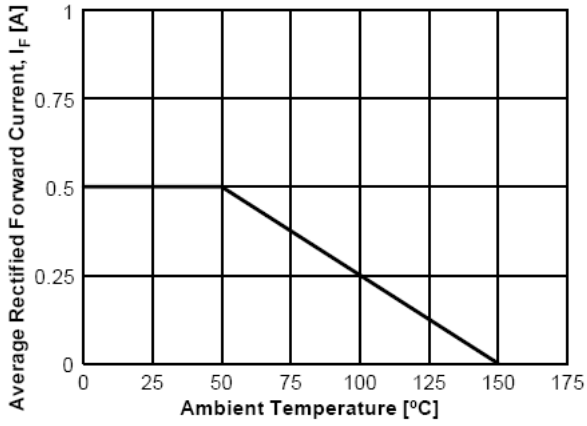


Figure 2. Forward Voltage Characteristics

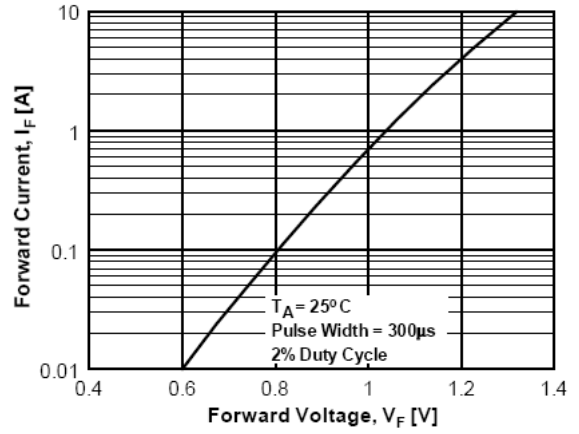


Figure 3. Non-Repetitive Surge Current

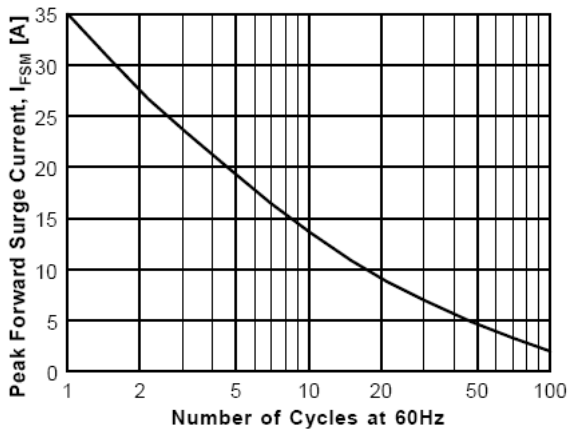
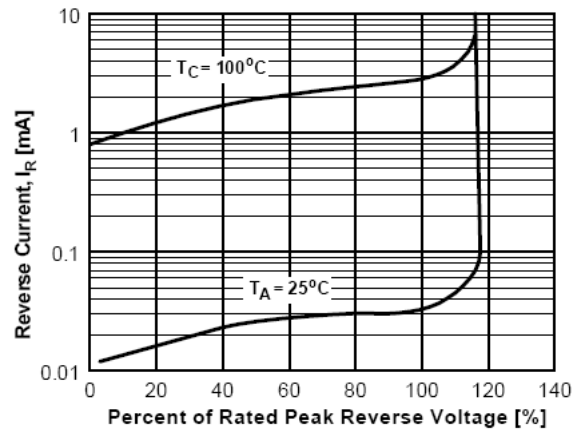







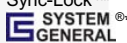
Figure 4. Reverse Current vs Reverse Voltage





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