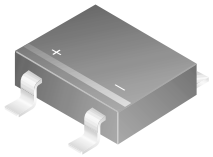
FAIRCHILD
SEMICONDUCTOR®

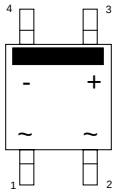
MB1S - MB8S

Features

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



SOIC-4
Polarity symbols molded or marking on body



Bridge Rectifiers

Absolute Maximum Ratings*

T_A = 25°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°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					°C
T_J	Operating Junction Temperature	-55 to +150					°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	°C/W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead,* per leg	20	°C/W

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

Electrical Characteristics

T_A = 25°C unless otherwise noted

Symbol	Parameter		Device	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°C T_A = 125°C	5.0 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 V, f = 1.0 MHz		13	pF

Typical Characteristics

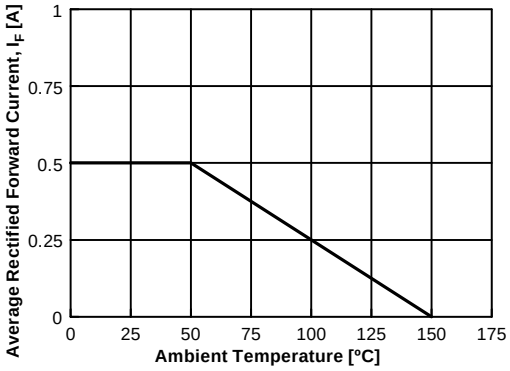


Figure 1. Forward Current Derating Curve

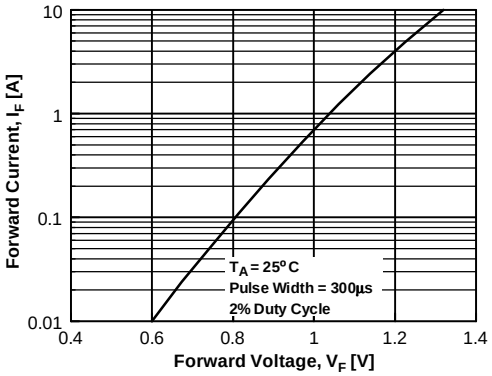


Figure 2. Forward Voltage Characteristics

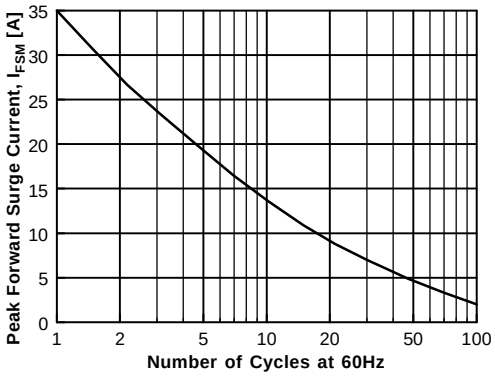


Figure 3. Non-Repetitive Surge Current

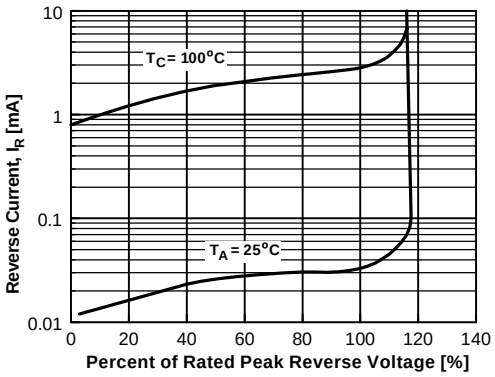


Figure 4. Reverse Current vs Reverse Voltage

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