

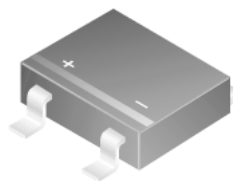
# MB10S

## Bridge Rectifier

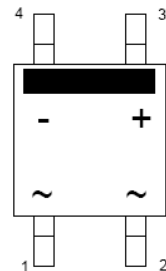


### Features

- 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
$V_{RRM}$	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, @ $T_A = 50^\circ\text{C}$ On Glass-epoxy P.C.B. On Aluminum substrate	0.5	A
		0.8	
$I_{FSM}$	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	$^\circ\text{C}/\text{W}$

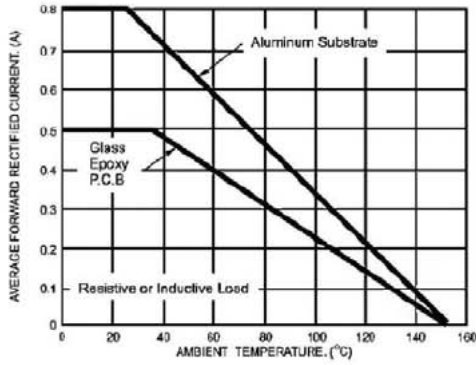
\* Device mounted on PCB with 0.5" x 0.5" (13 x 13 mm) lead length

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

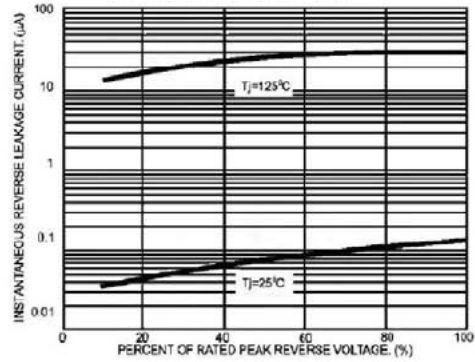
Symbol	Parameter	Value	Units	
$V_F$	Forward Voltage, per bridge @ 0.5 A	1.0	V	
$I_R$	Reverse Current, per leg @ Rated $V_R$	$T_A = 25^\circ\text{C}$	5.0	$\mu\text{A}$
		$T_A = 125^\circ\text{C}$	0.5	mA
	$I^2t$ rating for fusing $t < 8.3$ ms	5.0	$\text{A}^2\text{s}$	
$C_T$	Total Capacitance, per leg $V_R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

## Typical Performance Characteristics

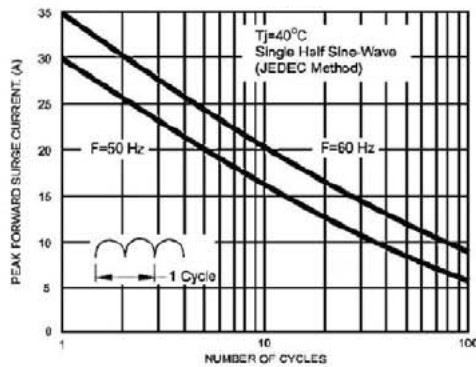
**Figure 1. Derating Curve For Output Rectified Current**



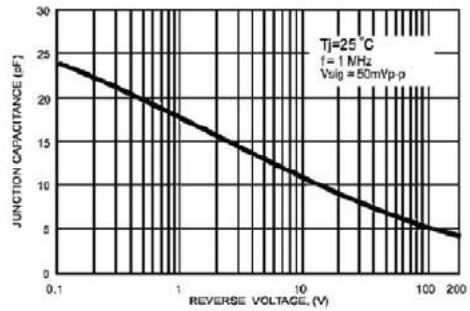
**Figure 2. Typical Reverse Leakage Characteristics Per Leg**



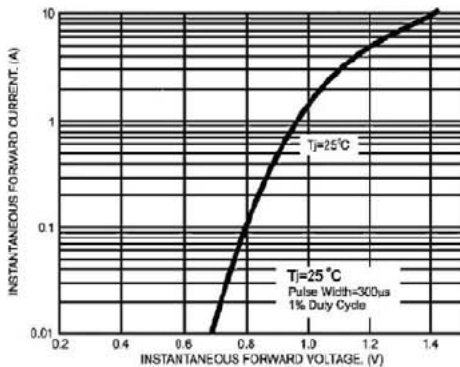
**Figure 3. Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



**Figure 4. Typical Junction Capacitance Per Leg**








**Figure 5. Typical Forward Voltage Characteristics Per Leg**





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