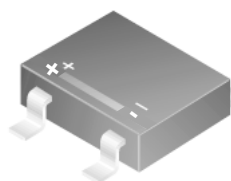


# MB1S - MB8S

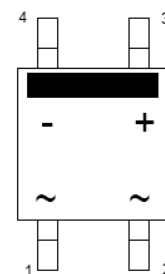
## 0.5 A Bridge Rectifiers

### Features

- Low-Leakage
- Surge Overload Rating: 35 A peak
- Ideal for Printed Circuit Board
- UL Certified: UL #E111753 and E326243



**SOIC-4**  
Polarity symbols molded  
or mark on body



### Ordering Informations

Part Number	Marking	Package	Packing Method
MB1S	MB1S	SOIC-4	Tape and Reel
MB2S	MB2S		
MB4S	MB4S		
MB6S	MB6S		
MB8S	MB8S		

### Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at  $T_A = 25^\circ\text{C}$  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 at $T_A = 50^\circ\text{C}$	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					$^\circ\text{C}$

## Thermal Characteristics

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	1.4	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient, per Leg <sup>(1)</sup>	85	°C/W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead, per Leg <sup>(1)</sup>	20	°C/W

**Note:**

1. Device mounted on PCB with 0.5 x 0.5 inch (13 x 13 mm) lead length.

## Electrical Characteristics

Values are at  $T_A = 25^\circ\text{C}$  unless otherwise specified.

Symbol	Parameter	Test Conditions	Value	Units
$V_F$	Forward Voltage, per Bridge	0.5 A	1.0	V
$I_R$	Reverse Current, per Leg at Rated $V_R$	$T_A = 25^\circ\text{C}$	5.0	$\mu\text{A}$
		$T_A = 125^\circ\text{C}$	0.5	mA
$I^2t$	$I^2t$ Rating for Fusing	$t < 8.3 \text{ ms}$	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

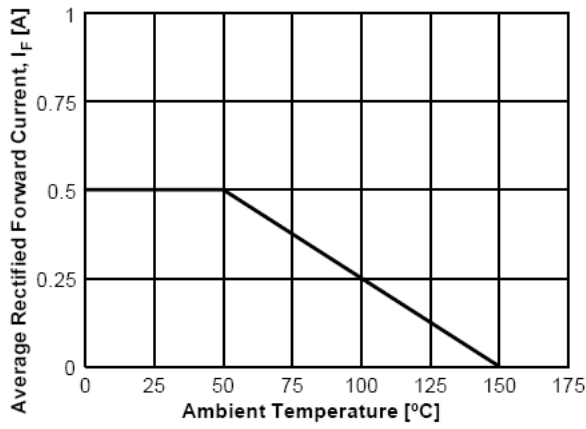


Figure 1. Forward Current Derating Curve

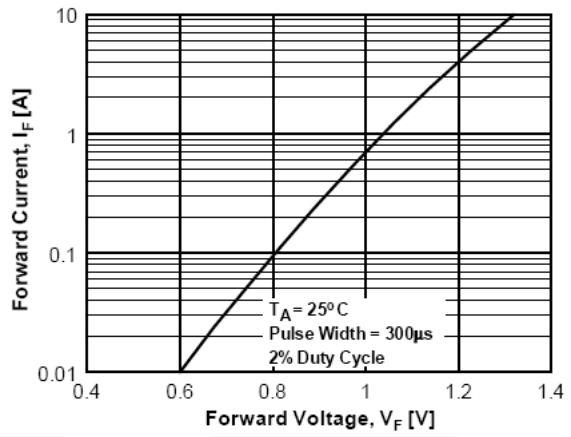


Figure 2. Forward Voltage Characteristics

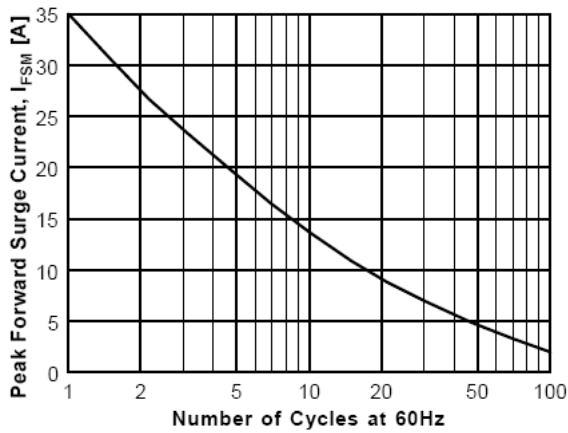


Figure 3. Non-Repetitive Surge Current

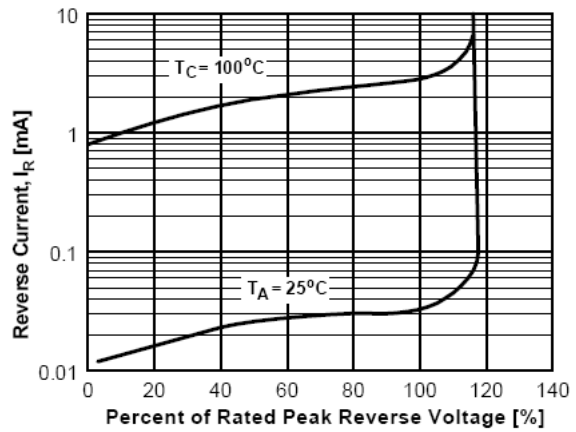


Figure 4. Reverse Current vs. Reverse Voltage

# Physical Dimensions

## SOIC-4

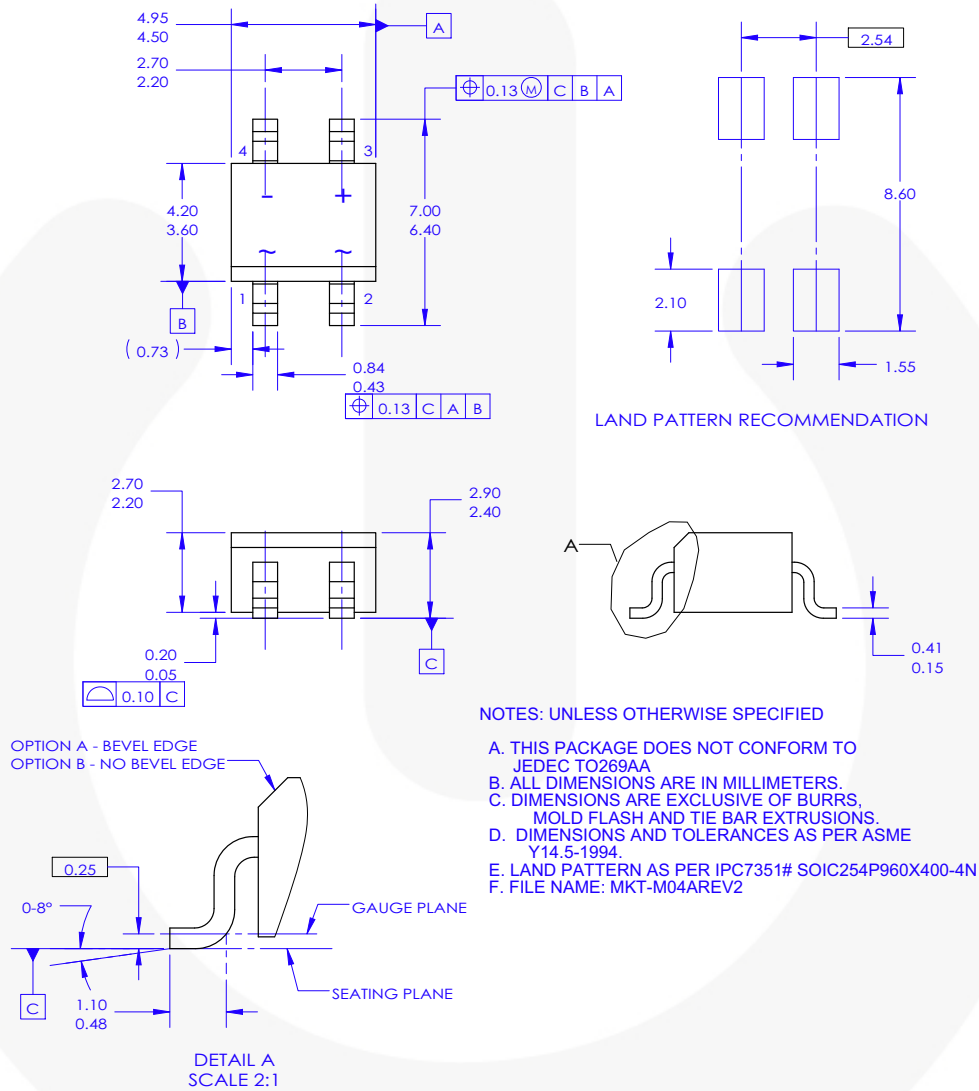


Figure 5. 4-LEAD, SOIC, JEDEC TO269AA, 3.95 MM WIDE BODY (Active)

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