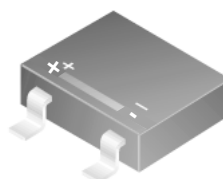


MB1S - MB8S

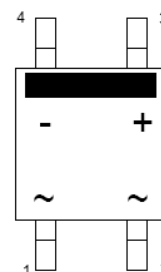
0.5 A Bridge Rectifiers

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



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 ⁽¹⁾	85	$^\circ\text{C/W}$
$R_{\theta JL}$	Thermal Resistance, Junction to Lead, per Leg ⁽¹⁾	20	$^\circ\text{C/W}$

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	μA
		$T_A = 125^\circ\text{C}$	0.5	mA
I^2t	I^2t Rating for Fusing	$t < 8.3 \text{ ms}$	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

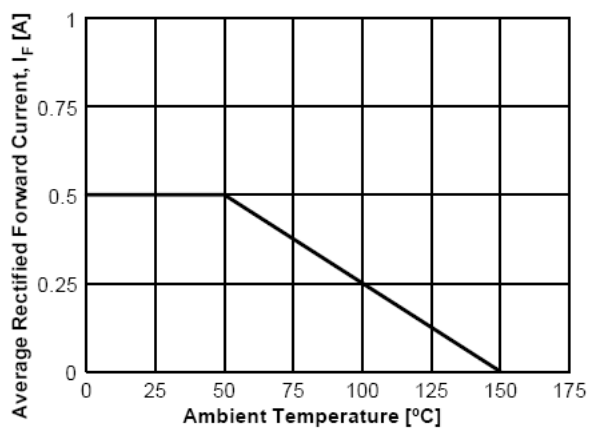


Figure 1. Forward Current Derating Curve

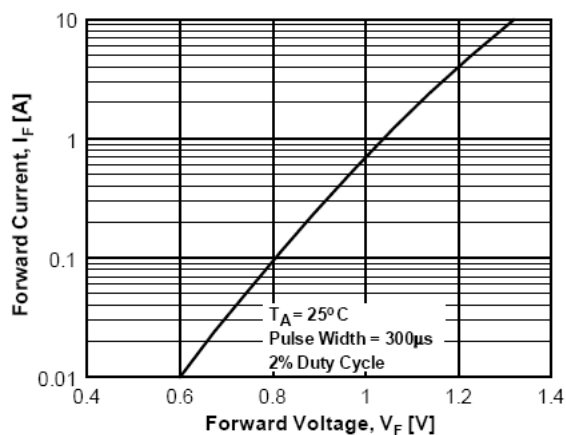


Figure 2. Forward Voltage Characteristics

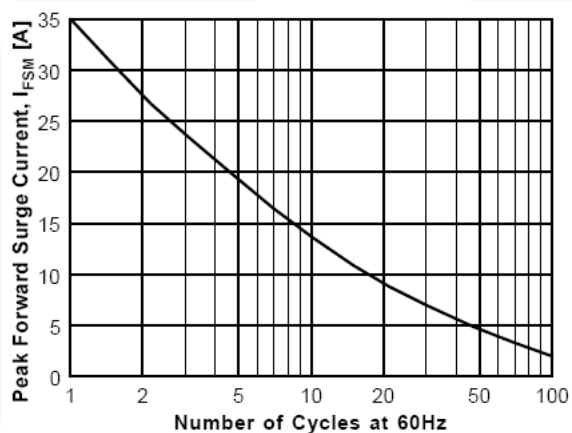


Figure 3. Non-Repetitive Surge Current

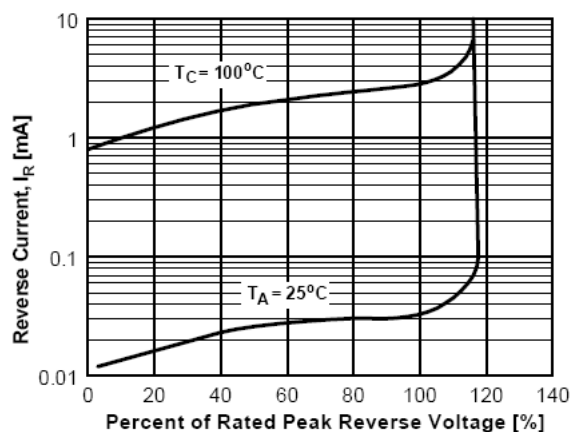


Figure 4. Reverse Current vs. Reverse Voltage

Physical Dimensions

SOIC-4

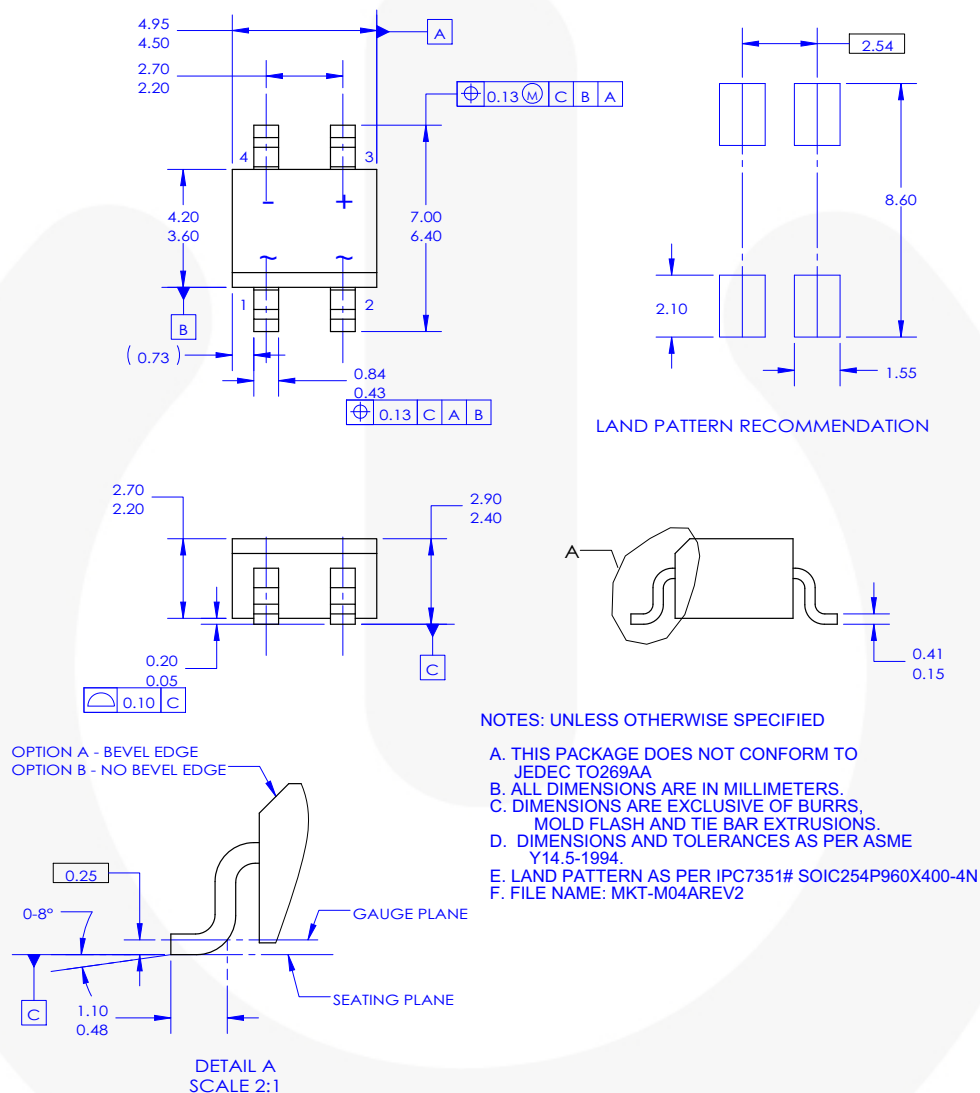


Figure 5. 4-LEAD, SOIC, JEDEC TO269AA, 3.95 MM WIDE BODY (Active)

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Rev. I64