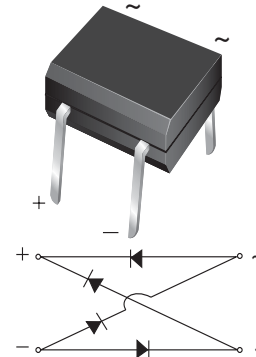


Miniature Glass Passivated Single-Phase Bridge Rectifiers

Major Ratings and Characteristics

$I_{F(AV)}$	0.5 A
V_{RRM}	200 V, 400 V, 600 V
I_{FSM}	30 A
I_R	5 μ A
V_F	1.0 V
T_j max.	150 °C

Case Style MBM



Features

- UL Recognized, file number E54214
- Ideal for printed circuit boards
- Applicable for automotive insertion
- Middle surge current capability
- Recommended for non-automotive applications
- Solder Dip 260 °C, 40 seconds



Mechanical Data

Case: MBM

Epoxy meets UL-94V-0 Flammability rating

Terminals: Matte tin plated (E3 Suffix) leads, solderable per J-STD-002B and JEDEC B102D

Polarity: As marked on body

Typical Applications

General purpose use in ac-to-dc bridge full wave rectification for Power Supply, Lighting Ballaster, Battery Charger, Home Appliances, Office Equipment, and Telecommunication applications

Maximum Ratings

($T_A = 25$ °C unless otherwise noted)

Parameter	Symbol	B2M	B4M	B6M	Unit
Device marking code		B2	B4	B6	
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC blocking voltage	V_{DC}	200	400	600	V
Maximum average forward output rectified current (see Fig. 1) on glass-epoxy P.C.B.	$I_{F(AV)}$	0.5 ⁽¹⁾			A
Peak forward surge current 10 msec single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30			A
Rating for fusing ($t < 8.3$ ms)	I^2t	5.0			A ² sec
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150			C °

Electrical Characteristics

($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

Parameter	Test condition	Symbol	B2M	B4M	B6M	Unit
Maximum instantaneous forward voltage drop per leg	at 0.5 A	V_F		1.0		V
Maximum DC reverse current at rated DC blocking voltage per leg	$T_A = 25\text{ }^\circ\text{C}$ $T_A = 125\text{ }^\circ\text{C}$	I_R		5.0 100		μA
Typical junction capacitance per leg	at 4.0 V, 1 MHz	C_J		13		pF

Thermal Characteristics

($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	B2M	B4M	B6M	Unit
Typical thermal resistance per leg ⁽¹⁾	$R_{\theta JA}$ $R_{\theta JL}$		90 40		$^\circ\text{C/W}$

Notes:

(1) On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3 mm) pads

Ratings and Characteristics Curves

($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

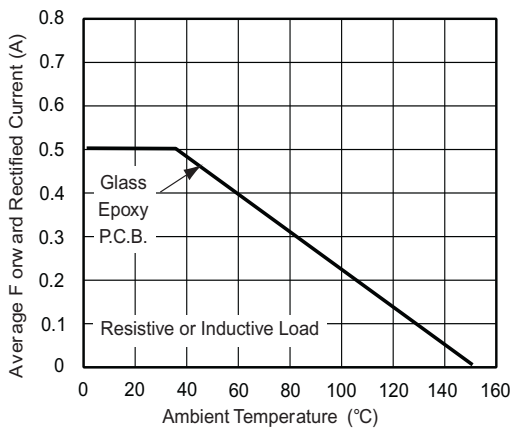


Figure 1. Derating Curve for Output Rectified Current

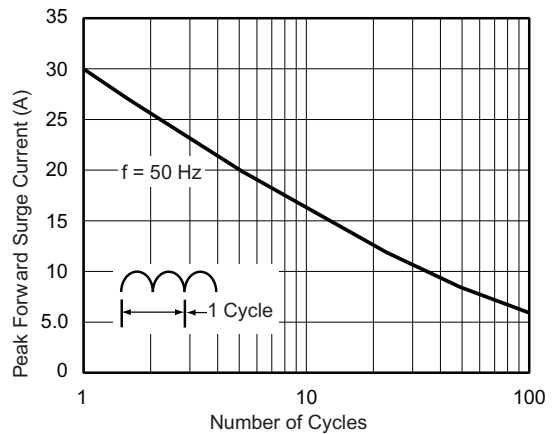


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

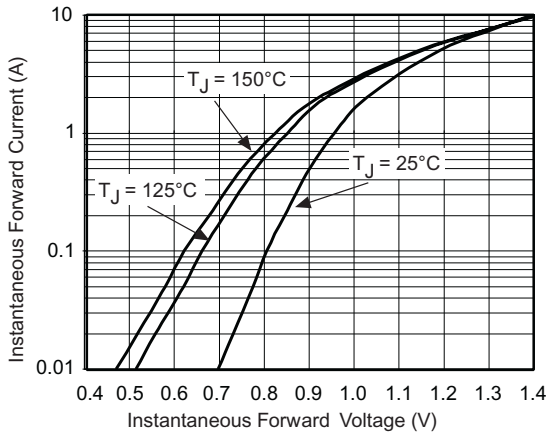


Figure 3. Typical Forward Voltage Characteristics Per Leg

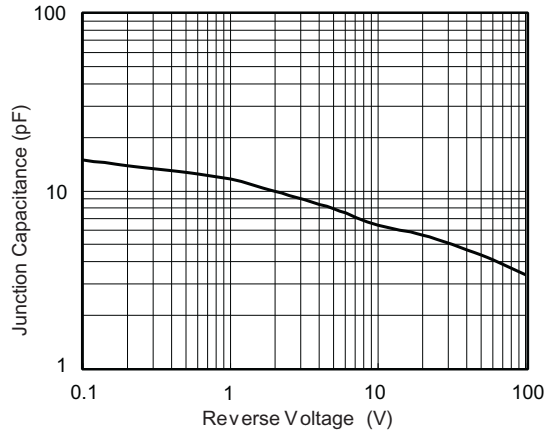


Figure 5. Typical Junction Capacitance Per Leg

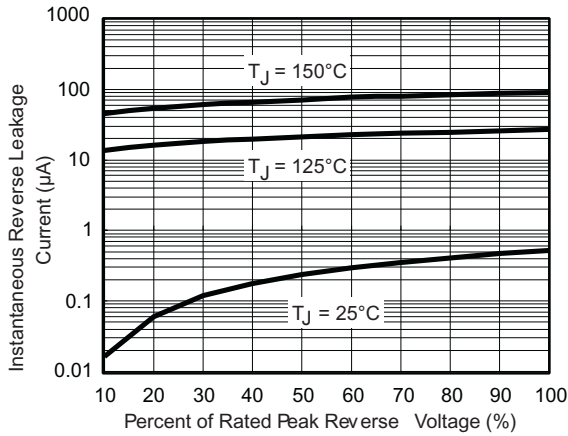


Figure 4. Typical Reverse Leakage Characteristics Per Leg

Package outline dimensions in inches (millimeters)

