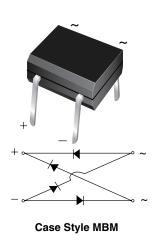


Vishay General Semiconductor

Miniature Glass Passivated Single-Phase Bridge Rectifiers



PRIMARY CHARACTERISTICS					
I _{F(AV)}	0.5 A				
V _{RRM}	200 V, 400 V, 600 V				
I _{FSM}	30 A				
I _R	5 μΑ				
V_{F}	1.0 V				
T _J max.	150 °C				

FEATURES





• Ideal for printed circuit boards



Applicable for automative insertion

RoHS

Middle surge current capability

- Recommended for non-automotive applications
- Solder dip 260 °C, 40 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

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.

MECHANICAL DATA

Case: MBM

Epoxy meets UL 94V-0 flammability rating

Terminals: Matte tin plated leads, solderable per

J-STD-002 and JESD22-B102

E3 suffix for consumer grade, meets JESD 201 class

1A whisker test

Polarity: As marked on body

PARAMETER	SYMBOL	B2M	B4M	В6М	UNIT
Device marking code		B2	B4	В6	
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 (Fig. 1) on glass-epoxy P.C.B.	I _{F(AV)}	0.5 ⁽¹⁾			А
Peak forward surge current 10 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30			А
Rating for fusing (t < 8.3 ms)	I ² t	5.0		A ² s	
Operating junction and storage temperature range	T _J , T _{STG}	- 55 to + 150			°C

Note:

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

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ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)							
PARAMETER	TEST CONDITIONS	SYMBOL	B2M	B4M	В6М	UNIT	
Maximum instantaneous forward voltage drop per diode	0.5 A	V _F	1.0			V	
Maximum DC reverse current at rated DC blocking voltage per diode	T _A = 25 °C T _A = 125 °C	I _R	5.0 100		μΑ		
Typical junction capacitance per diode	4.0 V, 1 MHz	CJ	13			pF	

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)						
PARAMETER	SYMBOL	B2M	B4M	B6M	UNIT	
Typical thermal resistance (1)	$R_{ hetaJA} \ R_{ hetaJL}$	90 40		°C/W		

Note:

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

ORDERING INFORMATION (Example)							
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE			
B2M-E3/45	0.22	45	100	Tube			

RATINGS AND CHARACTERISTICS CURVES

(T_A = 25 °C unless otherwise noted)

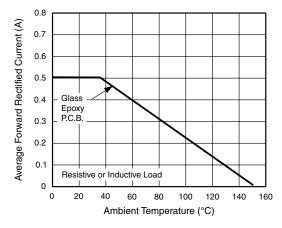


Figure 1. Derating Curve for Output Rectified Current

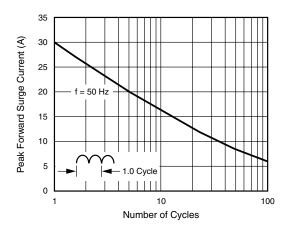


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode



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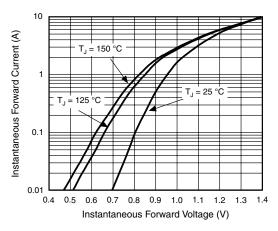


Figure 3. Typical Forward Voltage Characteristics Per Diode

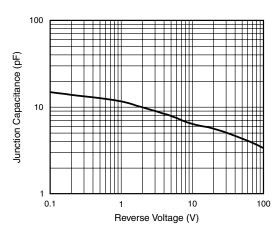


Figure 5. Typical Junction Capacitance Per Diode

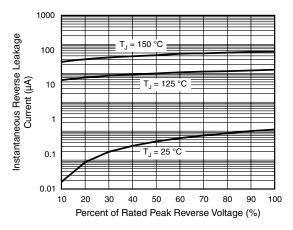
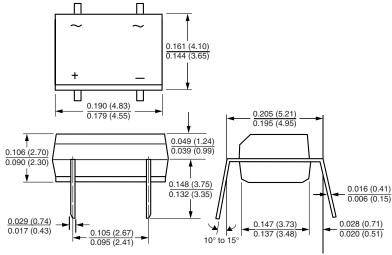


Figure 4. Typical Reverse Leakage Characteristics Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

Case Style MBM





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