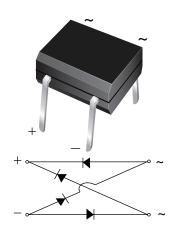


Vishay General Semiconductor

Miniature Glass Passivated Single-Phase Bridge Rectifiers



Case Style MBM

LINKS TO ADDITIONAL RESOURCES



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 at $I_F = 0.5$ A	1.0 V			
T _J max.	150 °C			
Package	МВМ			
Circuit configuration	Quad			

FEATURES

• UL recognized, file number E54214

· Ideal for printed circuit boards

RoHS

- Applicable for automative insertion
- Middle surge current capability
- · Recommended for non-automotive applications
- Solder dip 275 °C max. 10 s, per JESD 22-B106
- Material categorization: for definitions of compliance please see <u>www.vishav.com/doc?99912</u>

TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for power supply, lighting ballaster, battery charger, home appliances, office equipment, and telecommunication applications.

MECHANICAL DATA

Case: MBM

Molding compound meets UL 94 V-0 flammability rating Base P/N-E3 - RoHS-compliant, commercial grade

Terminals: matte tin plated leads, solderable per

J-STD-002 and JESD 22-B102

E3 suffix meets JESD 201 class 1A whisker test

Polarity: as marked on body

MAXIMUM RATINGS (T _A = 25 °C unless otherwise noted)						
PARAMETER	SYMBOL	B2M	B4M	В6М	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 (fig. 1) on glass-epoxy PCB	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)	l 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 PCB mounted on 0.05" x 0.05" (1.3 mm 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	I _F = 0.5 A	V _F	1.0		V	
Maximum DC reverse current at rated	T _A = 25 °C	1		5.0		
DC blocking voltage per diode	T _A = 125 °C	IR		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	В6М	UNIT
Typical thermal resistance (1)	$R_{\theta JA}$	90			°C/W
	$R_{ heta JL}$	40			

Note

 $^{^{(1)}}$ On glass epoxy PCB mounted on 0.05" x 0.05" (1.3 mm 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)

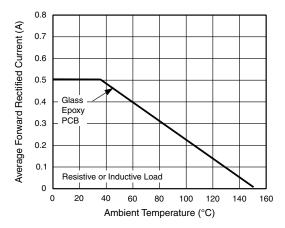


Fig. 1 - Derating Curve for Output Rectified Current

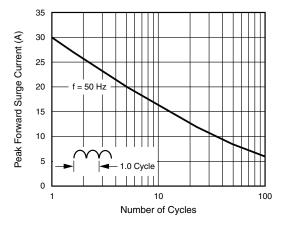


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

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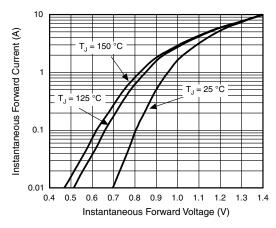


Fig. 3 - Typical Forward Voltage Characteristics Per Diode

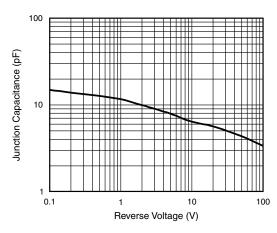


Fig. 5 - Typical Junction Capacitance Per Diode

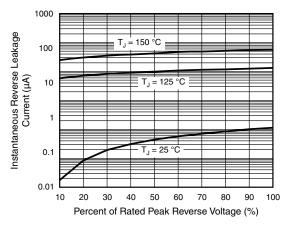
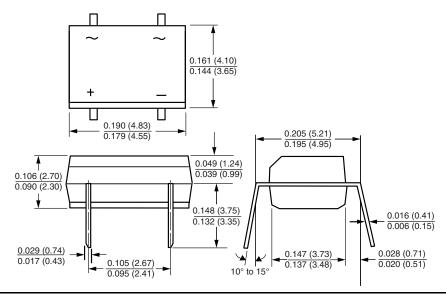


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

Case Style MBM





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