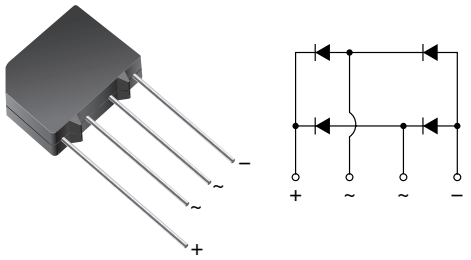
Glass Passivated Single-Phase Bridge Rectifier



Case Style KBPM

FEATURES

- UL recognition file number E54214
- Ideal for printed circuit board
- High surge current capability
- High case dielectric strength
- Solder dip 260 °C, 40 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

RoHS COMPLIANT

TYPICAL APPLICATIONS

General purpose use in ac-to-dc bridge full wave rectification for switching power supply, home appliances, office equipment, and telecommunication applications.

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	3 A
V_{RRM}	50 V to 800 V
I_{FSM}	80 A
I_R	5 µA
V_F	1.05 V
T_J max.	150 °C

MECHANICAL DATA

Case: KBPM

Epoxy meets UL 94V-0 flammability rating

Terminals: Silver plated leads, solderable per J-STD-002 and JESD22-B102
E4 suffix for consumer grade

Polarity: As marked on body

MAXIMUM RATINGS (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	3KBP 005M	3KBP 01M	3KBP 02M	3KBP 04M	3KBP 06M	3KBP 08M	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	V
Maximum average forward output rectified current at T_A = 55 °C (Fig. 1)	$I_{F(AV)}$	3.0						A
Peak forward surge current 50 Hz single half sine-wave superimposed on rated load	I_{FSM}	80						A
Rating for fusing (t < 10 ms)	I^2t	32						A^2s
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150						°C

ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)									
PARAMETER	**TEST CONDITIONS**	**SYMBOL**	**3KBP 005M**	**3KBP 01M**	**3KBP 02M**	**3KBP 04M**	**3KBP 06M**	**3KBP 08M**	**UNIT**
Maximum instantaneous forward voltage drop per diode	3.0 A	V_F	1.05						V
Maximum DC reverse current at rated DC blocking voltage per diode	T_A = 25 °C T_A = 125 °C	I_R	5.0 500						µA
Typical junction capacitance per diode	4.0 V, 1 MHz	C_J	25						pF

THERMAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)								
PARAMETER	**SYMBOL**	**3KBP 005M**	**3KBP 01M**	**3KBP 02M**	**3KBP 04M**	**3KBP 06M**	**3KBP 08M**	**UNIT**
Typical thermal resistance (1)	$R_{\theta JA}$ $R_{\theta JL}$	30 11						°C/W

Note:

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with, 0.47 x 0.47" (12 x 12 mm) copper pads

ORDERING INFORMATION (Example)				
PREFERRED P/N	**UNIT WEIGHT (g)**	**PREFERRED PACKAGE CODE**	**BASE QUANTITY**	**DELIVERY MODE**
3KBP06M-E4/45	1.912	45	30	Tube
3KBP06M-E4/51	1.912	51	600	Anti-static PVC tray

RATINGS AND CHARACTERISTICS CURVES

(T_A = 25 °C unless otherwise noted)

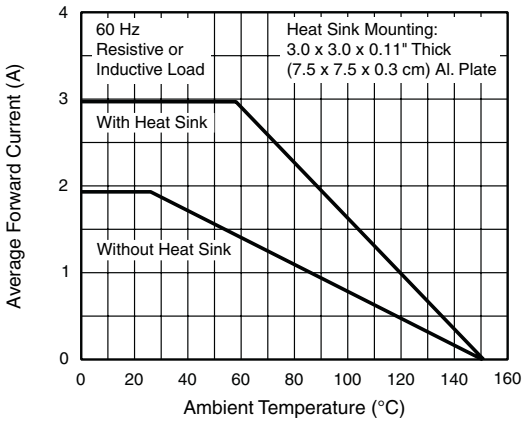


Figure 1. Forward Current Derating Curve

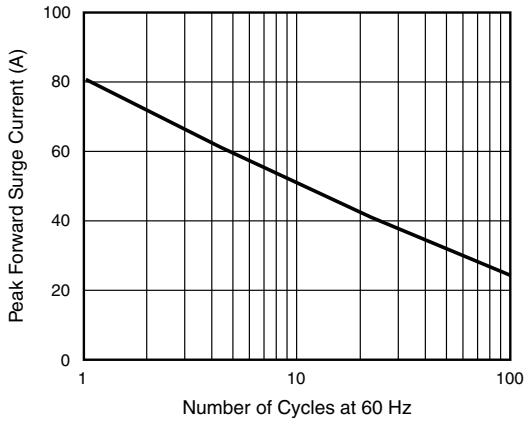


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

For technical questions within your region, please contact one of the following:
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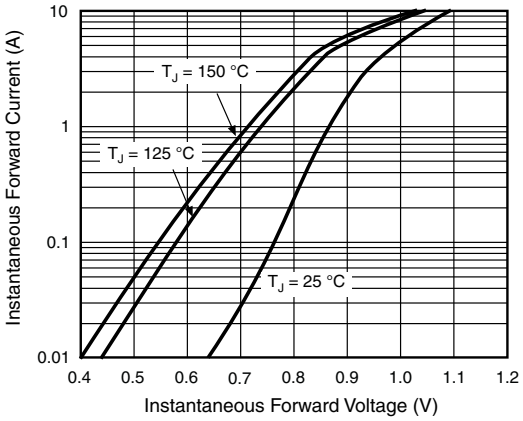


Figure 3. Typical Forward Characteristics Per Diode

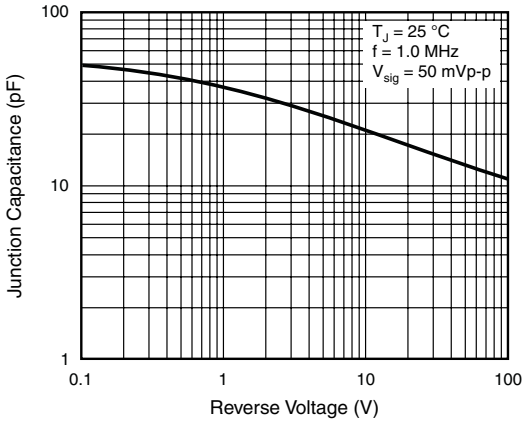


Figure 5. Typical Junction Capacitance Per Diode

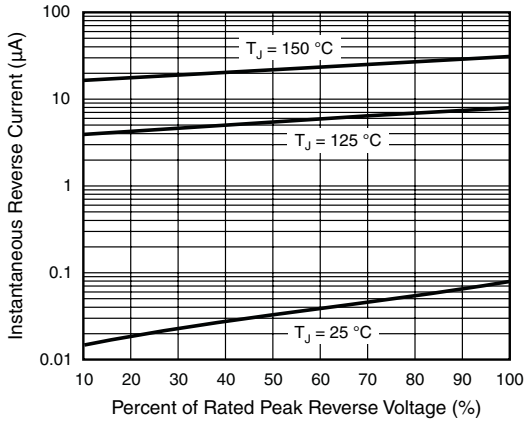
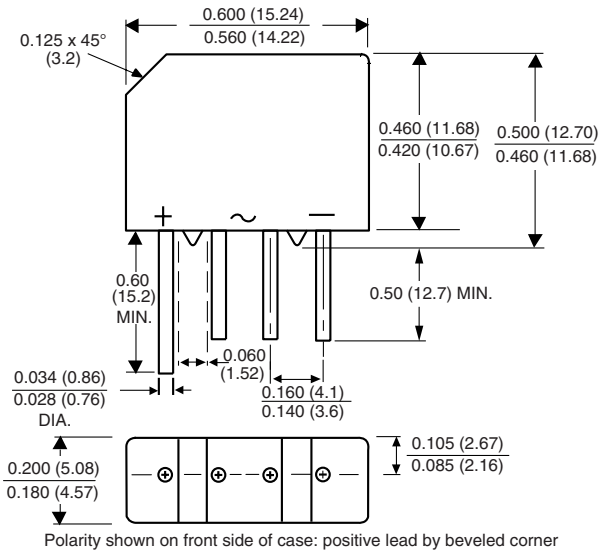


Figure 4. Typical Reverse Leakage Characteristics Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

Case Style KBPM



Polarity shown on front side of case: positive lead by beveled corner

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