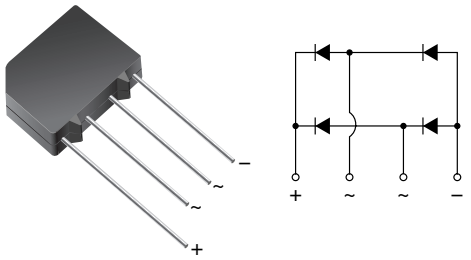
Glass Passivated Single-Phase Bridge Rectifier



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	
$I_{F(AV)}$	2 A
V_{RRM}	50 V to 1000 V
I_{FSM}	60 A
I_R	5 µA
V_F	1.1 V
T_J max.	165 °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	2KBP 005M	2KBP 01M	2KBP 02M	2KBP 04M	2KBP 06M	2KBP 08M	2KBP 10M	UNIT
		3N253	3N254	3N255	3N256	3N257	3N258	3N259	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Max. average forward output rectified current at T_A = 55 °C	$I_{F(AV)}$	2.0							A
Peak forward surge current single half sine-wave superimposed on rated load	I_{FSM}	60							A
Rating for fusing (t < 8.3 ms)	I^2t	15							A^2s
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 165							°C

ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)										
PARAMETER	**TEST CONDITIONS**	**SYMBOL**	**2KBP 005M**	**2KBP 01M**	**2KBP 02M**	**2KBP 04M**	**2KBP 06M**	**2KBP 08M**	**2KBP 10M**	**UNIT**
			3N253	**3N254**	**3N255**	**3N256**	**3N257**	**3N258**	**3N259**	
Maximum instantaneous forward voltage drop per diode	3.14 A	V_F	1.1							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**	**2KBP 005M**	**2KBP 01M**	**2KBP 02M**	**2KBP 04M**	**2KBP 06M**	**2KBP 08M**	**2KBP 10M**	**UNIT**
		3N253	**3N254**	**3N255**	**3N256**	**3N257**	**3N258**	**3N259**	
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**
2KBP06M-E4/45	1.895	45	30	Tube
2KBP06M-E4/51	1.895	51	600	Anti-static PVC tray
3N257-E4/45	1.895	45	30	Tube
3N257-E4/51	1.895	51	600	Anti-static PVC tray

RATINGS AND CHARACTERISTICS CURVES

(T_A = 25 °C unless otherwise noted)

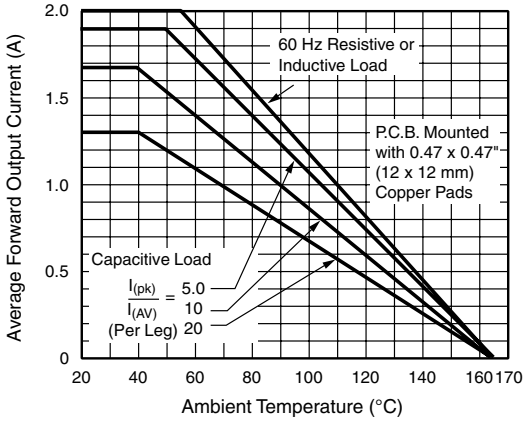


Figure 1. Derating Curve Output Rectified Current

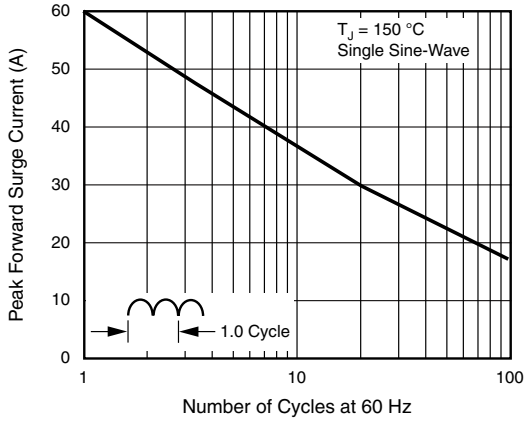


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

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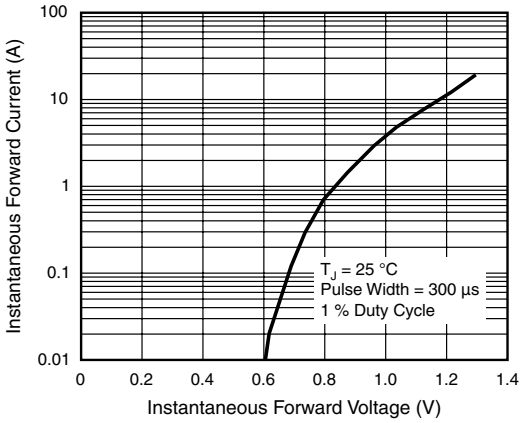


Figure 3. Typical Forward Characteristics Per Diode

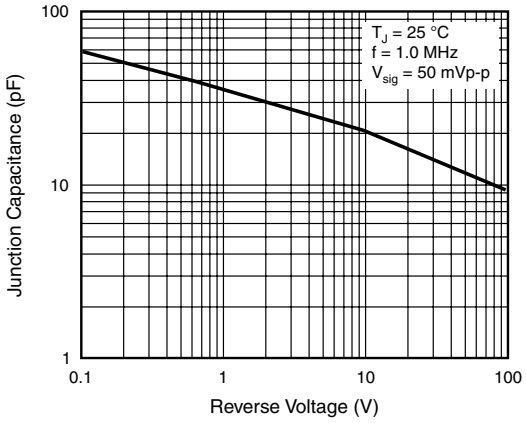


Figure 5. Typical Junction Capacitance Per Diode

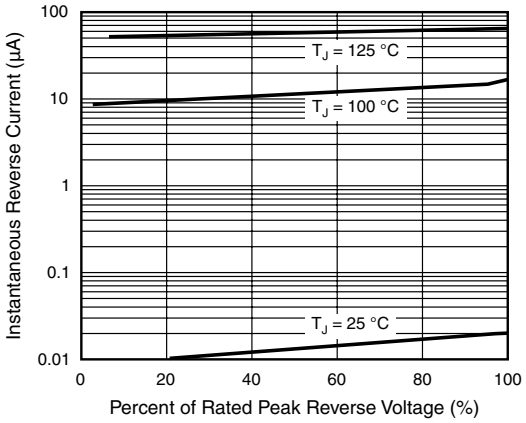
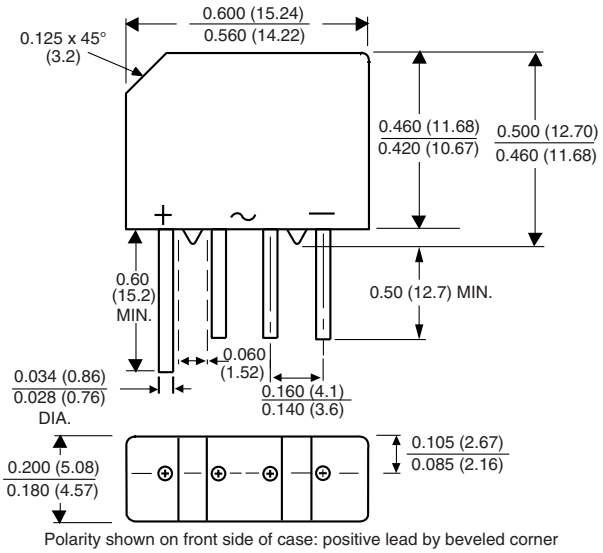


Figure 4. Typical Reverse Leakage Characteristics Per Diode

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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