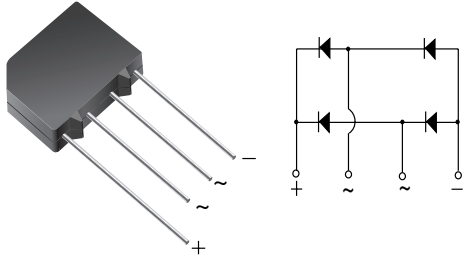




Glass Passivated Single-Phase Bridge Rectifier



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 seconds
- 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 Switching Power Supply, Home Appliances, Office Equipment, and Telecommunication applications.

MECHANICAL DATA

Case: KBPM

Epoxy meets UL 94V-0 flammability rating

Terminals: Silver plated leads, solderable per J-STD-002B and JESD22-B102D

E4 suffix for commercial grade

Polarity: As marked on body

MAJOR RATINGS AND CHARACTERISTICS	
$I_{F(AV)}$	1.5 A
V_{RRM}	50 V to 1000 V
I_{FSM}	60 A
I_R	5 μ A
V_F	1.0 V
T_j max.	150 °C

MAXIMUM RATINGS ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)									
PARAMETER	SYMBOL	KBP 005M	KBP 01M	KBP 02M	KBP 04M	KBP 06M	KBP 08M	KBP 10M	UNIT
		3N246	3N247	3N248	3N249	3N250	3N251	3N252	
* 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 $T_A = 40\text{ }^\circ\text{C}$	$I_{F(AV)}$	1.5							A
* Peak forward surge current single half sine-wave $T_A = 25\text{ }^\circ\text{C}$ $T_j = 150\text{ }^\circ\text{C}$	I_{FSM}	60 40							A
Rating for fusing ($t < 8.3\text{ ms}$)	I^2t	10							$A^2\text{sec}$
* Operating junction and storage temperature range	T_j, T_{STG}	- 55 to + 150							$^\circ\text{C}$

* JEDEC registered values

ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)										
PARAMETER	TEST CONDITIONS	SYMBOL	KBP 005M	KBP 01M	KBP 02M	KBP 04M	KBP 06M	KBP 08M	KBP 10M	UNIT
			3N246	3N247	3N248	3N249	3N250	3N251	3N252	
* Maximum instantaneous forward voltage drop per diode	at 1.0 A at 1.57 A	V _F	1.0 1.3							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	at 4.0 V, 1 MHz	C _J	15							pF

* JEDEC registered values

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)										
PARAMETER	SYMBOL	KBP 005M	KBP 01M	KBP 02M	KBP 04M	KBP 06M	KBP 08M	KBP 10M	UNIT	
		3N246	3N247	3N248	3N249	3N250	3N251	3N252		
Typical thermal resistance ⁽¹⁾	R _{θJA} R _{θJL}	40 13							°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				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
KBP06M-E4/45	1.895	45	30	Tube
KBP06M-E4/51	1.895	51	600	Anti-static PVC Tray
3N250-E4/45	1.895	45	30	Tube
3N250-E4/51	1.895	51	600	Anti-static PVC Tray

RATINGS AND CHARACTERISTICS CURVES

(T_A = 25 °C unless otherwise noted)

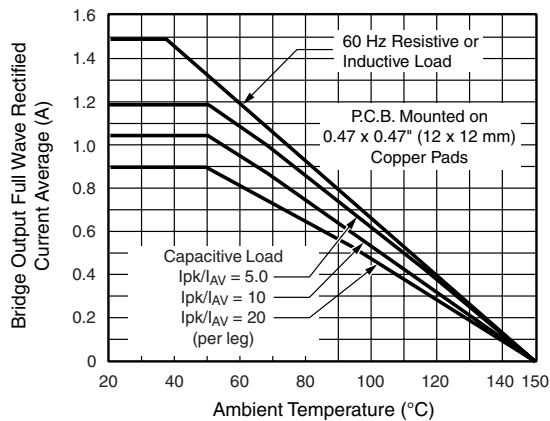


Figure 1. Derating Curve Output Rectified Current

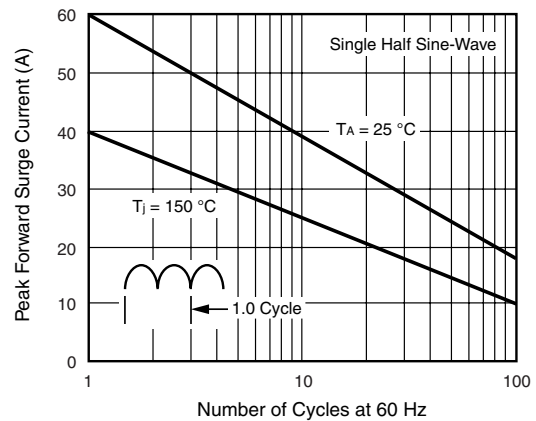


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

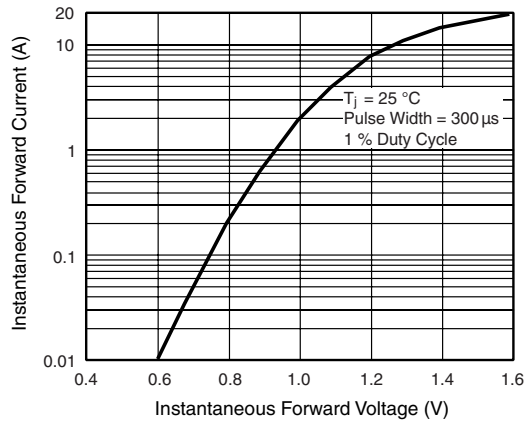


Figure 3. Typical Forward Characteristics Per Diode

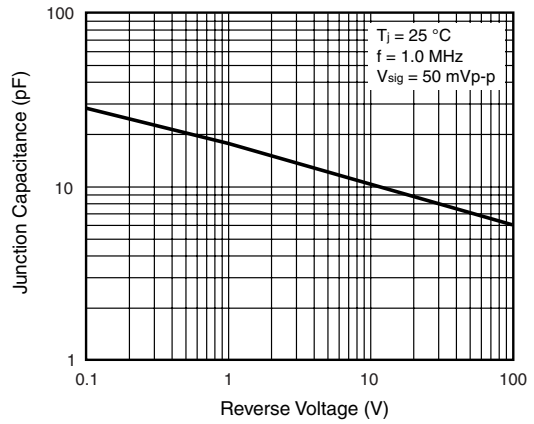


Figure 5. Typical Junction Capacitance Per Diode

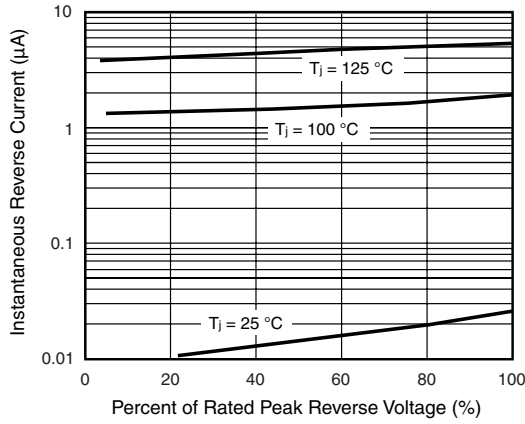
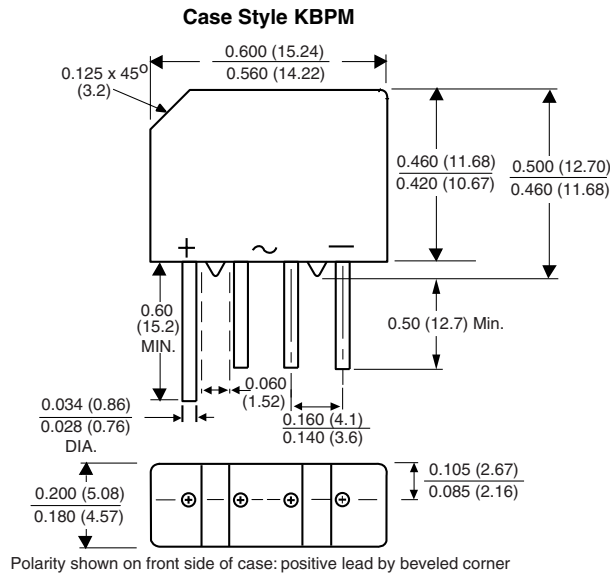


Figure 4. Typical Reverse Leakage Characteristics Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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