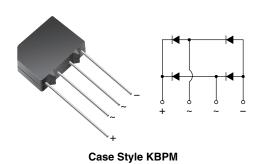


Vishay General Semiconductor

Glass Passivated Single-Phase Bridge Rectifier



PRIMARY CHARACTERISTICS							
I _{F(AV)}	1.5 A						
V _{RRM}	50 V to 1000 V						
I _{FSM}	60 A						
I _R	5 μΑ						
V _F	1.0 V						
T _J max.	150 °C						

FEATURES





Ideal for printed circuit board

(64)

• High surge current capability

RoHS

• High case dielectric strength

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 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-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	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 (1)	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage (1)	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage (1)	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward output rectified current at $T_A = 40$ °C	ed I _{F(AV)} 1.5			Α					
Peak forward surge current $T_A = 25 ^{\circ}\text{C}$ single half sine-wave ⁽¹⁾ $T_J = 150 ^{\circ}\text{C}$	I _{FSM}	60 40				Α			
Rating for fusing (t < 8.3 ms)	l ² t	10							A ² s
Operating junction and storage temperature range (1)	T _J , T _{STG}	- 55 to + 150				°C			

Note:

(1) JEDEC registered values

KBP005M thru KBP10M, 3N246 thru 3N252

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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 (1)	1.0 A 1.57 A	V _F	1.0 1.3					V		
Maximum DC reverse current at rated DC blocking voltage per diode ⁽¹⁾	T _A = 25 °C T _A = 125 °C	I _R	5.0 500					μΑ		
Typical junction capacitance per diode	4.0 V, 1 MHz	CJ	15				pF			

Note

(1) 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⁾	$egin{array}{c} R_{ hetaJA} \ R_{ hetaJL} \end{array}$	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 (Example)									
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)

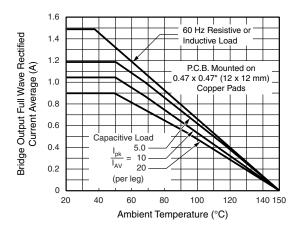


Figure 1. Derating Curve Output Rectified Current

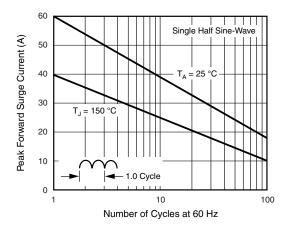


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

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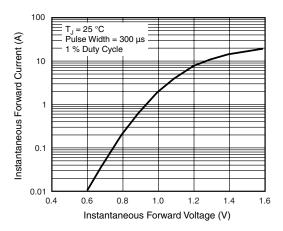


Figure 3. Typical Forward Characteristics Per Diode

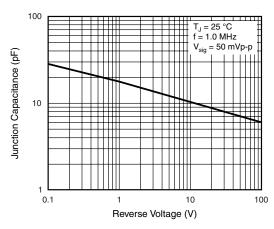


Figure 5. Typical Junction Capacitance Per Diode

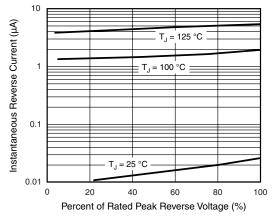
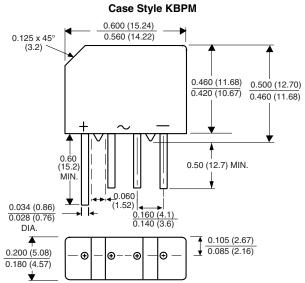


Figure 4. Typical Reverse Leakage Characteristics Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



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

Document Number: 88531 Revision: 15-Apr-08 For technical questions within your region, please contact one of the following: PDD-Americas@vishay.com, PDD-Asia@vishay.com, PDD-Europe@vishay.com





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