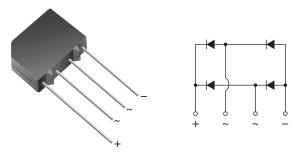


Vishay General Semiconductor

Glass Passivated Single-Phase Bridge Rectifier



_		
Caca	CtvIA	KBPN
Case	Sivie	KDFIV

PRIMARY CHARACTERISTICS							
Package KBPM							
I _{F(AV)}	2.0 A						
V_{RRM}	50 V to 1000 V						
I _{FSM}	60 A						
I _R	5 μΑ						
V _F at I _F = 3.14 A	1.1 V						
T _J max.	165 °C						
Diode variations	In-line						

FEATURES

- UL recognition file number E54214
- · Ideal for printed circuit board
- · High surge current capability
- · High case dielectric strength
- Solder dip 275 °C max. 10 s, per JESD 22-B106
- · Material categorization: for definitions of compliance



TYPICAL APPLICATIONS

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

MECHANICAL DATA

Case: KBPM

Molding compound meets UL 94 V-0 flammability rating

Base P/N-E4 - RoHS-compliant, commercial grade

Terminals: Silver plated leads, solderable

J-STD-002 and JESD22-B102 Polarity: As marked on body

MAXIMUM RATINGS (T _A = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	2KBP005M	2KBP01M	2KBP02M	2KBP04M	2KBP06M	2KBP08M	2KBP10M	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
Maximum average forward output rectified current at T _A = 55 °C	I _{F(AV)}	2.0						Α	
Peak forward surge current single half sine-wave superimposed on rated load	I _{FSM}	60					Α		
Rating for fusing (t < 8.3 ms)	l ² t	15						A ² s	
Operating junction and storage temperature range	T _J , T _{STG}		-55 to +165					°C	

ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)										
PARAMETER SYM	SYMBOL	TEST	2KBP005M	2KBP01M	2KBP02M	2KBP04M	2KBP06M	2KBP08M	2KBP10M	LIMIT
	STIVIBUL	CONDITIONS	3N253	3N254	3N255	3N256	3N257	3N258	3N259	UNIT
Maximum instantaneous forward voltage drop per diode	V_{F}	3.14 A	1.1					V		
Maximum DC reverse		T _A = 25 °C	5.0							
current at rated DC blocking voltage per diode	I _R	T _A = 125 °C	500					μA		
Typical junction capacitance per diode	T _J	4.0 V, 1 MHz	25					pF		



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THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	2KBP005M	2KBP01M	2KBP02M	2KBP04M	2KBP06M	2KBP08M	2KBP10M	UNIT
		3N253	3N254	3N255	3N256	3N257	3N258	3N259	
Typical thermal resistance	R _{θJA} ⁽¹⁾	30						°C/W	
Typical thermal resistance	R ₀ JL (1)				11				0/ **

Note

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

ORDERING INFORMATION (Example)									
PREFERRED P/N	FERRED P/N UNIT WEIGHT (g) PACKAGE CODE BASE QUANTITY DELIVERY MODI								
2KBP06M-E4/51	1.895	51	600	Anti-static PVC tray					
3N257-E4/51	1.895	51	600	Anti-static PVC tray					

RATINGS AND CHARACTERISTICS CURVES ($T_A = 25$ °C unless otherwise noted)

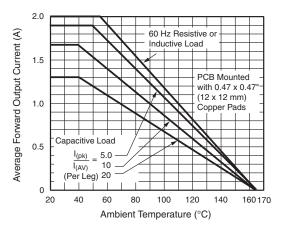


Fig. 1 - Derating Curve Output Rectified Current

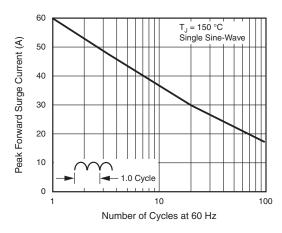


Fig. 2 - Maximum Non-Repetitive Peak Forward SurgeCurrent Per Diode

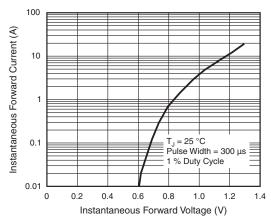


Fig. 3 - Typical Forward Characteristics Per Diode

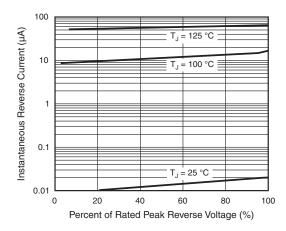


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

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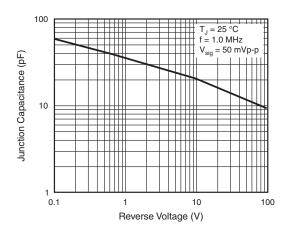
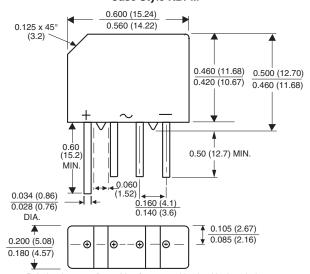


Fig. 5 - Typical Junction Capacitance Per Diode

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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