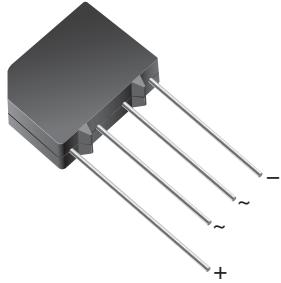
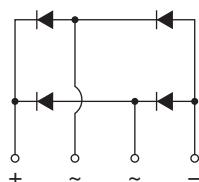


Glass Passivated Single-Phase Bridge Rectifier


Case Style KBPM


FEATURES

- UL recognition file number E54214
- Ideal for printed circuit board
- High surge current capability
- High case dielectric strength
- Solder dip 275 °C max. 10 s, per JESD 22-B106
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE

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-M4 - halogen-free, RoHS-compliant, and commercial grade

Terminals: Silver plated leads, solderable per J-STD-002 and JESD 22-B102

Polarity: As marked on body

PRIMARY CHARACTERISTICS	
Package	KBPM
$I_F(AV)$	2.0 A
V_{RRM}	50 V to 1000 V
I_{FSM}	60 A
I_R	5 μ A
V_F at $I_F = 3.14$ A	1.1 V
T_J max.	165 °C
Diode variations	In-line

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						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 ($T_A = 25^\circ\text{C}$ unless otherwise noted)										
PARAMETER	TEST CONDITIONS	SYMBOL	2KBP0	UNIT						
			05M	1M	2M	4M	6M	8M	10M	
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	$T_J = 25^\circ\text{C}$	I_R				5.0				μA
	$T_J = 125^\circ\text{C}$					500				
Typical junction capacitance per diode	4.0 V, 1 MHz	C_J				25				pF

THERMAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)									
PARAMETER	SYMBOL	2KBP005M	2KBP01M	2KBP02M	2KBP04M	2KBP06M	2KBP08M	2KBP10M	UNIT
		3N253	3N254	3N255	3N256	3N257	3N258	3N259	
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$				30				$^\circ\text{C/W}$
	$R_{\theta JL}$				11				

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	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
2KBP06M-M4/51	1.895	51	600	Anti-static PVC tray
3N257-M4/51	1.895	51	600	Anti-static PVC tray

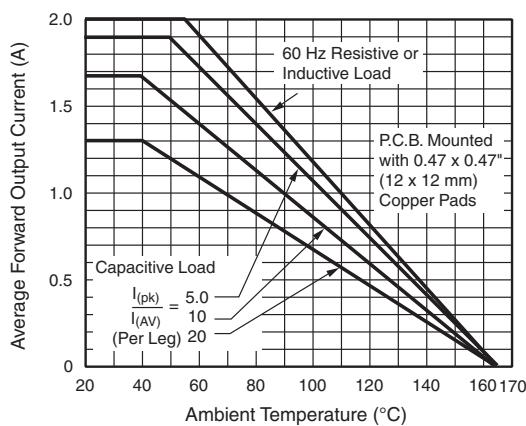
RATINGS AND CHARACTERISTICS CURVES ($T_A = 25^\circ\text{C}$ unless otherwise noted)


Fig. 1 - Derating Curve Output Rectified Current

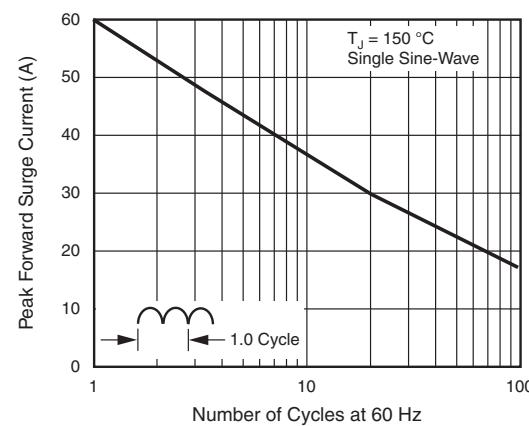


Fig. 2 - Derating Curve Output Rectified Current

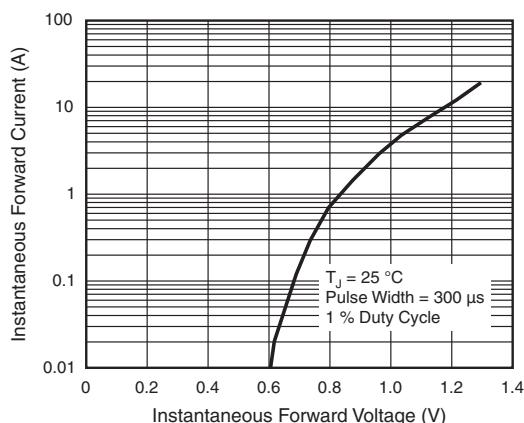


Fig. 3 - Typical Forward Characteristics Per Diode

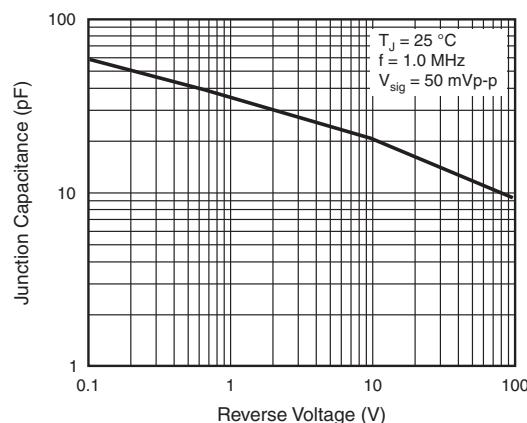


Fig. 5 - Typical Junction Capacitance Per Diode

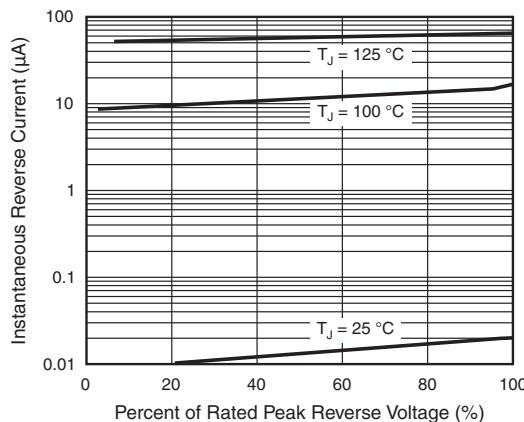
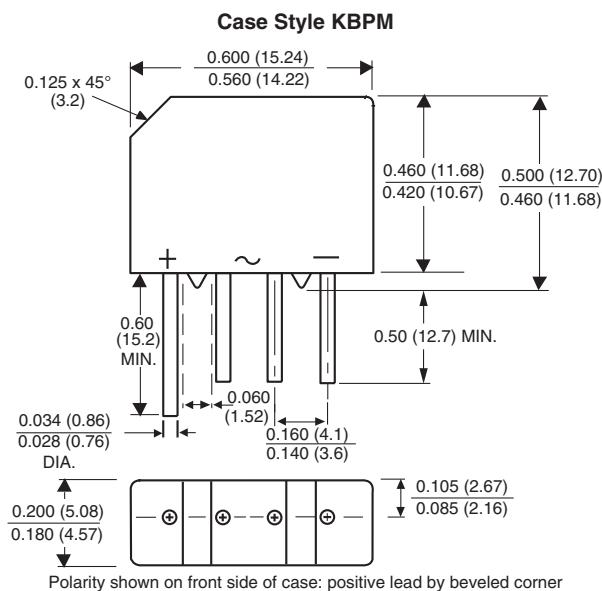


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



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