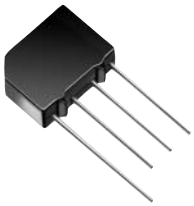
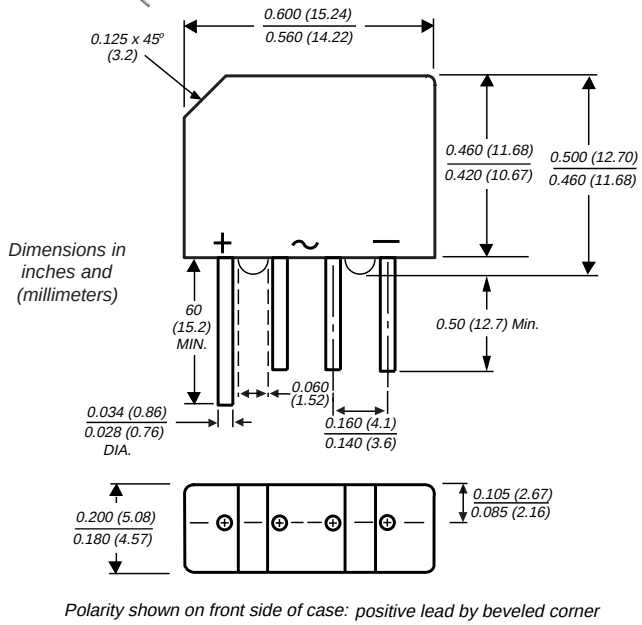
Vishay Semiconductors
formerly General Semiconductor

Glass Passivated Single-Phase Bridge Rectifiers

Rev. Voltage 50 to 1000V
Forward Current 1.5A



Case Style KBPM



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

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under Recognized Component Index, file number E54214
- Glass passivated chip junctions
- High surge current capability
- Ideal for printed circuit boards
- High temperature soldering guaranteed: 260°C/10 seconds at 5 lbs. (2.3kg) tension

Mechanical Data

Case: Molded plastic body over passivated junctions
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: Polarity symbols marked on case
Mounting Position: Any
Weight: 0.06 oz., 1.7 g
Packaging codes/options:
1/600 EA. per Bulk Tray Stack

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symb.	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°C	$I_{F(AV)}$	1.5							A
* Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) T_J =150°C	I_{FSM}	50 30							A
Rating for fusing (t < 8.3ms)	I^2t	10							A^2sec
Typical thermal resistance per leg(1)	$R_{\theta JA}$ $R_{\theta JL}$	40 13							°C/W
* Operating junction and storage temperature range	T_J, T_{STG}	–55 to +150							°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

* Max. instantaneous at forward voltage drop at	1.0A per leg 1.57A per leg	V_F	1.0 1.3	V
* Maximum DC reverse current at rated DC blocking voltage per leg	T_A = 25°C T_A = 125°C	I_R	5.0 500	µA
Typical junction capacitance per leg at 4.0V, 1MHz		C_J	15	pF

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 x12mm) copper pads
* JEDEC registered values

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Fig. 1 – Derating Curve Output Rectified Current

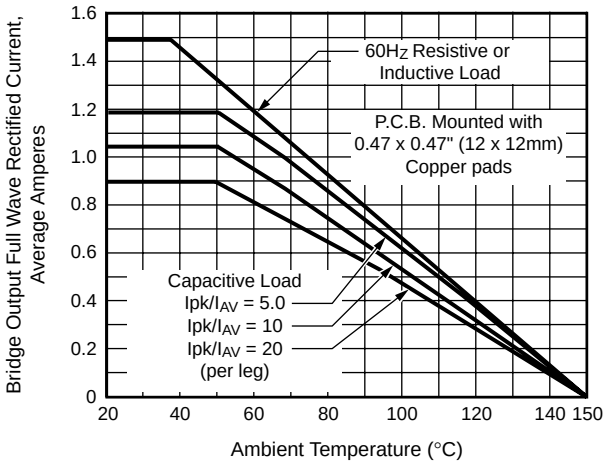


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

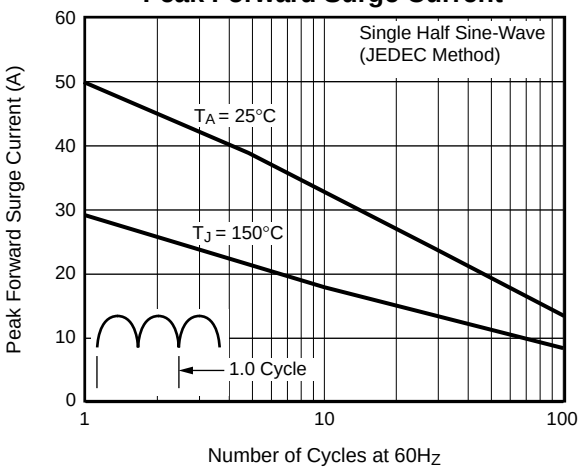


Fig. 3 – Typical Forward Characteristics Per Leg

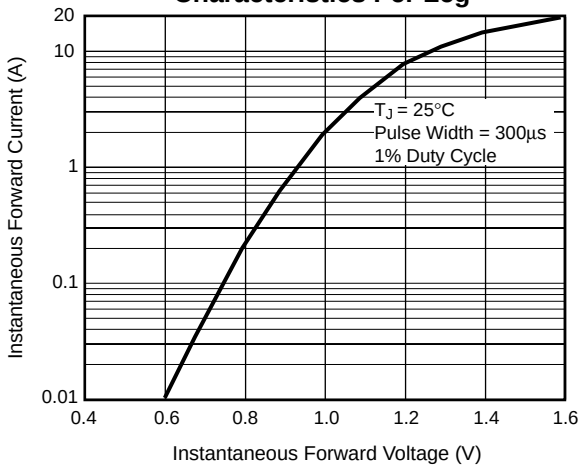


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

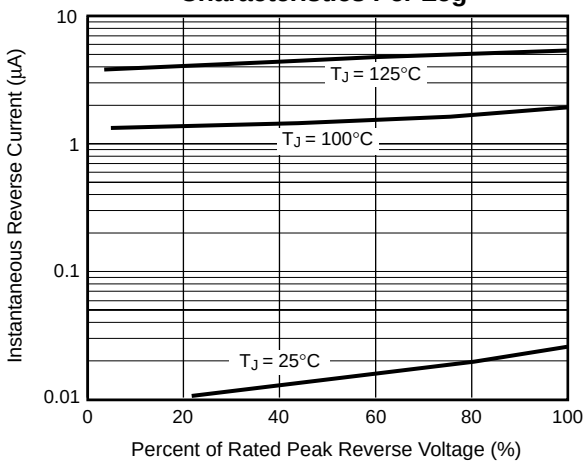


Fig. 5 – Typical Junction Capacitance Per Leg