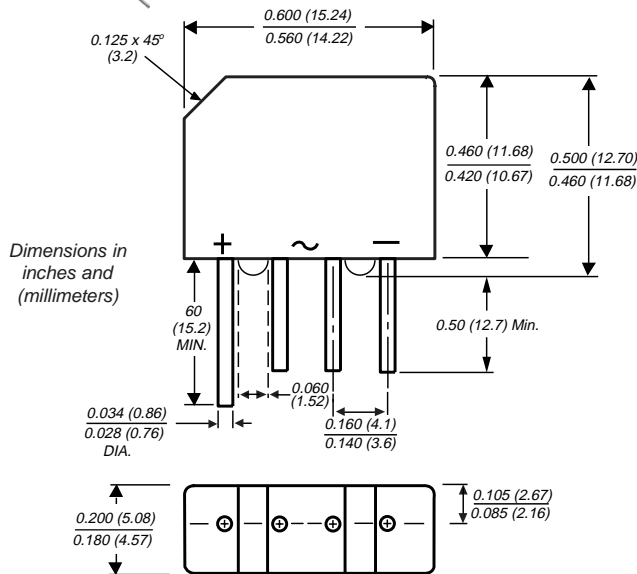


## Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 50 to 1000 V  
Forward Current 2.0 A

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
- Typical  $I_R$  less than  $0.1\mu A$
- High case dielectric strength
- Ideal for printed circuit boards
- High temperature soldering guaranteed:  $260^\circ C/10$  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  $25^\circ C$  ambient temperature unless otherwise specified.

Parameter	Symbols	2KBP 005M	2KBP 01M	2KBP 02M	2KBP 04M	2KBP 06M	2KBP 08M	2KBP 10M	Units
		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 $T_A=55^\circ C$	$I_{F(AV)}$	2.0							A
* Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ C$	$I_{FSM}$	60							A
Rating for fusing ( $t < 8.3ms$ )	$I^2t$	15							$A^2sec$
Typical thermal resistance per leg <sup>(1)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	30 11							$^\circ C/W$
* Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +165							$^\circ C$

## Electrical Characteristics

Ratings at  $25^\circ C$  ambient temperature unless otherwise specified.

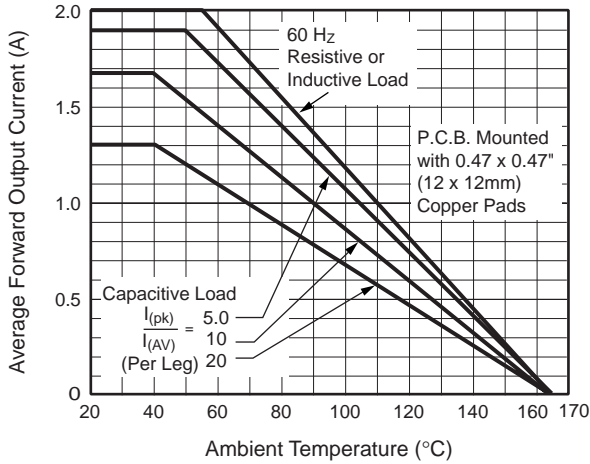
* Maximum instantaneous forward voltage drop per leg at 3.14A	$V_F$	1.1	V
* Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage per leg $T_A=125^\circ C$	$I_R$	5.0 500	$\mu A$
Typical junction capacitance per leg at 4.0V, 1MHz	$C_J$	25	pF

**Notes:** (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with,  $0.47 \times 0.47"$  ( $12 \times 12mm$ ) copper pads  
 \* JEDEC registered values

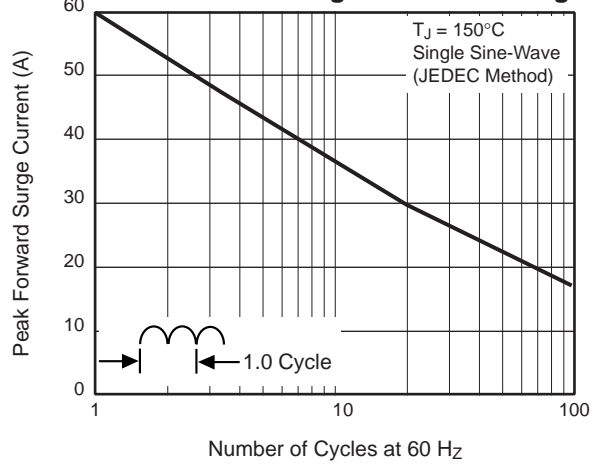
Vishay Semiconductors  
formerly General Semiconductor

**Ratings and Characteristic Curves** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

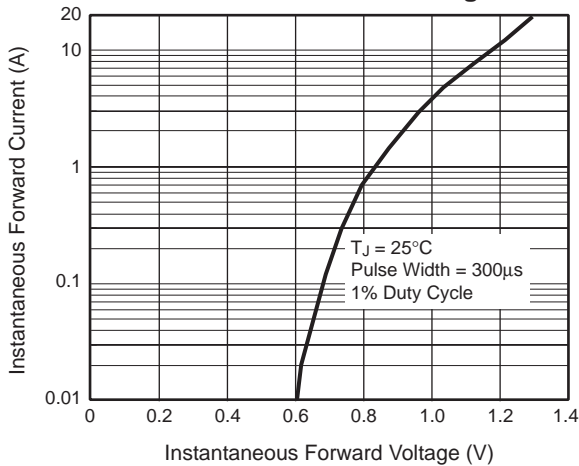
**Fig. 1 — Derating Curve Output Rectified Current**



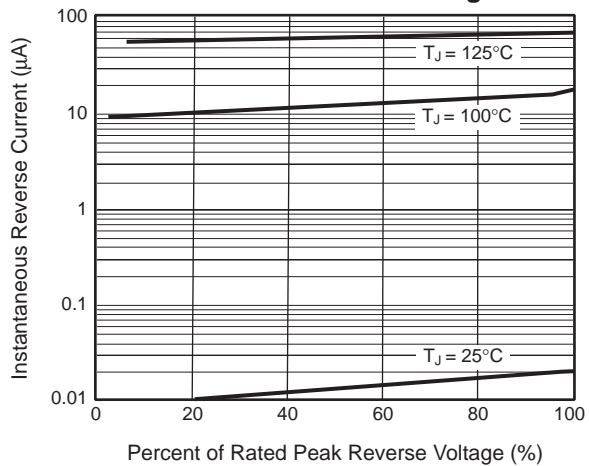
**Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



**Fig. 3 — Typical Forward Characteristics Per Leg**



**Fig. 4 — Typical Reverse Leakage Characteristics Per Leg**



**Fig. 5 — Typical Junction Capacitance Per Leg**

