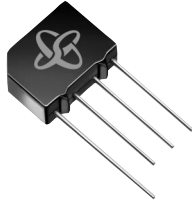


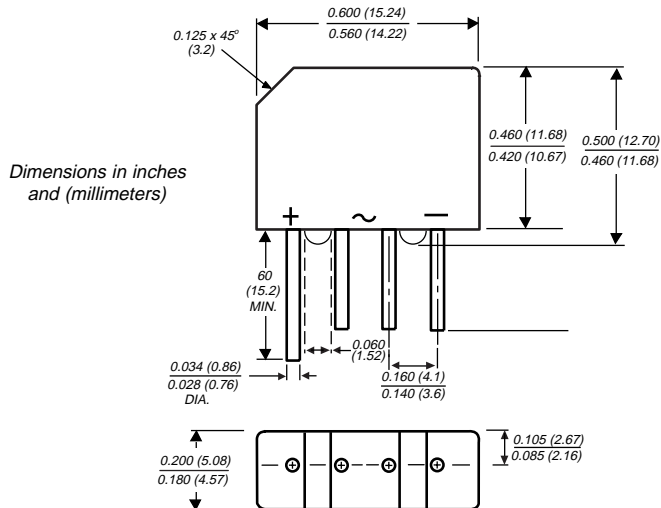
# KBP005M thru KBP10M 3N246 thru 3N252

## Glass Passivated Single-Phase Bridge Rectifier

Reverse 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 ounce, 1.7 grams

## Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	KBP 005M	KBP 01M	KBP 02M	KBP 04M	KBP 06M	KBP 08M	KBP 10M	UNITS
		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
Maximum average forward output rectified current at $T_A=40^\circ\text{C}$	$I_{F(AV)}$	1.5							A
* Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ\text{C}$	$I_{FSM}$	50 30							A
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	10							A <sup>2</sup> sec
Typical thermal resistance per leg (NOTE 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.

	SYMBOLS	KBP 005M	KBP 01M	KBP 02M	KBP 04M	KBP 06M	KBP 08M	KBP 10M	UNITS
		3N246	3N247	3N248	3N249	3N250	3N251	3N252	
* Maximum instantaneous forward voltage drop at 1.0A per leg 1.57A per leg	$V_F$	1.0 1.3							V
* Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage per leg $T_A=125^\circ\text{C}$	$I_R$	5.0 500							$\mu\text{A}$
Typical junction capacitance per leg at 4.0V, 1MHz	$C_J$	15							pF

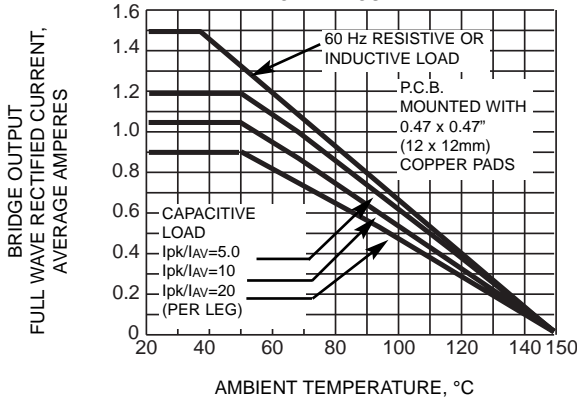
### NOTES:

(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 12mm) copper pads

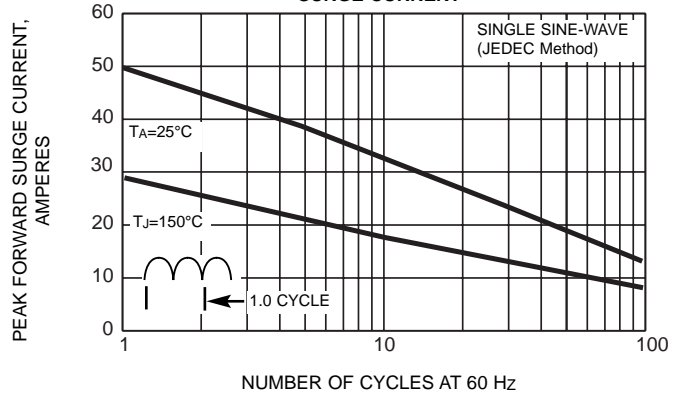
\* JEDEC registered values

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

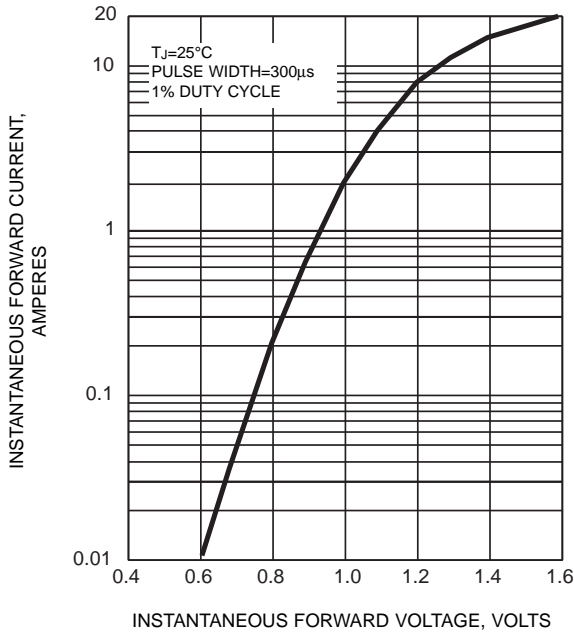
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



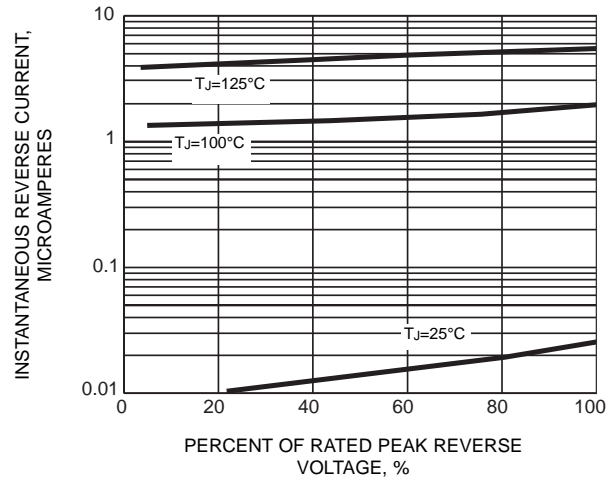
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG**



**FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG**

