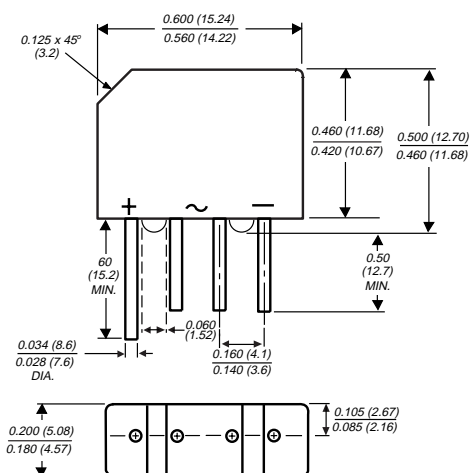


# KBP005M THRU KBP10M 3N246 THRU 3N252

## GLASS PASSIVATED SINGLE-PHASE RECTIFIER BRIDGE

Reverse Voltage - 50 to 1000 Volts      Forward Current - 1.5 Amperes

### Case Style KBPM

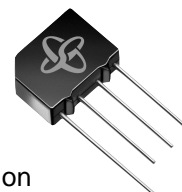


Polarity shown on front side of case: positive lead by beveled corner

Dimensions in inches and (millimeters)

### 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 board
- ◆ 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 lead 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 AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	KBP 005M 3N246	KBP 01M 3N247	KBP 02M 3N248	KBP 04M 3N249	KBP 06M 3N250	KBP 08M 3N251	KBP 10M 3N252	UNITS
* Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
* Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
* Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average forward output rectified current at T <sub>A</sub> =40°C	I <sub>(AV)</sub>	1.5							Amps
* Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)      T <sub>J</sub> =150°C	I <sub>FSM</sub>				50.0 30.0				Amps
Rating for fusing (t < 8.3ms)	I <sup>2</sup> t				10.0				A <sup>2</sup> sec
* Maximum instantaneous forward voltage drop      at 1.0A per leg 1.57A per leg	V <sub>F</sub>				1.0 1.3				Volts
* Maximum DC reverse current      T <sub>A</sub> =25°C at rated DC blocking voltage per leg      T <sub>A</sub> =125°C	I <sub>R</sub>				5.0 500.0				μA
Typical junction capacitance per leg (NOTE 1)	C <sub>J</sub>				15.0				pF
Typical thermal resistance per leg (NOTE 2)	R <sub>θJA</sub> R <sub>θJL</sub>				40.0 13.0				°C/W
* Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>				-55 to +150				°C

#### NOTES:

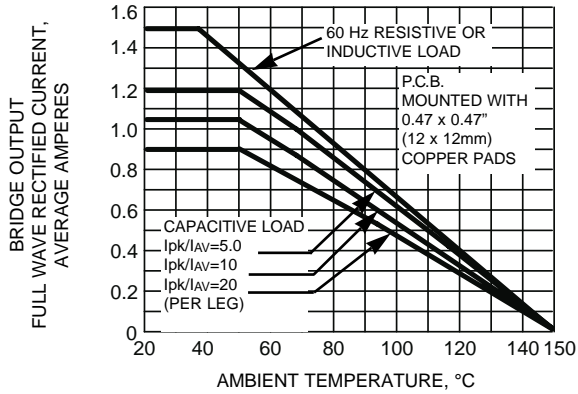
(1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(2) 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

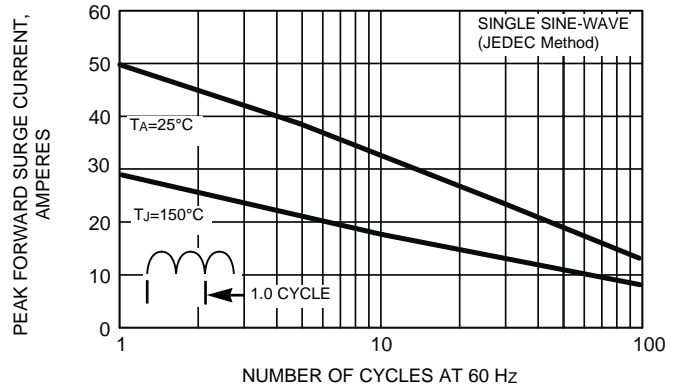
\* JEDEC registered values

# RATINGS AND CHARACTERISTICS CURVES KBP005M THRU KBP10M / 3N246 THRU 3N252

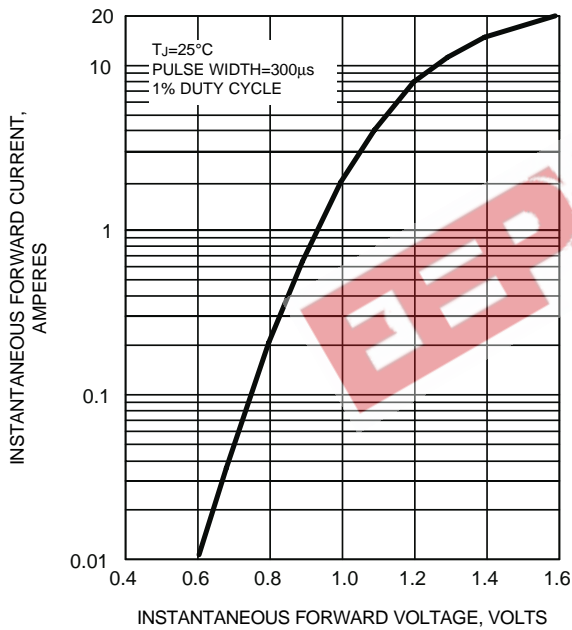
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



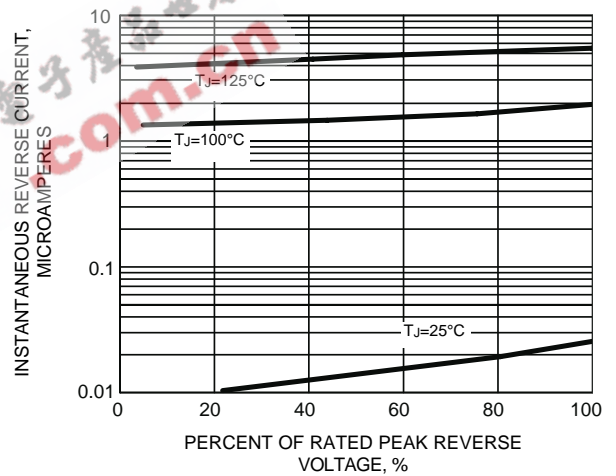
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



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



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



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

