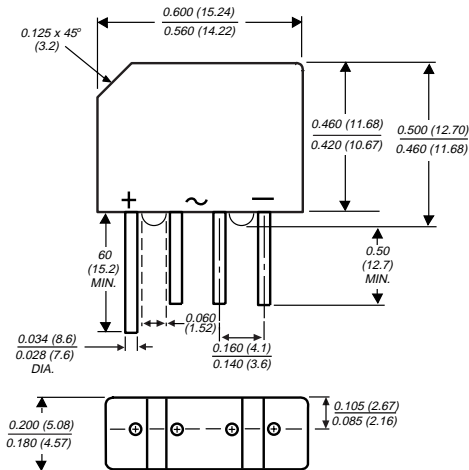


KBP005M THRU KBP10M 3N246 THRU 3N252

GLASS PASSIVATED SINGLE-PHASE RECTIFIER BRIDGE

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

Case Style KBPM

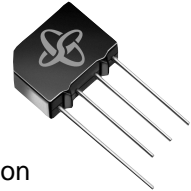


Polarity shown on front side of case: positive lead by beveled corner

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 _{RRM}	50	100	200	400	600	800	1000	Volts
* Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
* Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward output rectified current at T _A =40°C	I _(AV)	1.5							Amps
* Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) T _J =150°C	I _{FSM}	50.0 30.0							Amps
Rating for fusing (t < 8.3ms)	I ² t	10.0							A ² sec
* Maximum instantaneous forward voltage drop at 1.0A per leg 1.57A per leg	V _F	1.0 1.3							Volts
* Maximum DC reverse current at rated DC blocking voltage per leg T _A =25°C T _A =125°C	I _R	5.0 500.0							μA
Typical junction capacitance per leg (NOTE 1)	C _J	15.0							pF
Typical thermal resistance per leg (NOTE 2)	R _{θJA} R _{θJL}	40.0 13.0							°C/W
* Operating junction and storage temperature range	T _J , T _{STG}	-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 x 12mm) copper pads

* JEDEC registered values

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

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

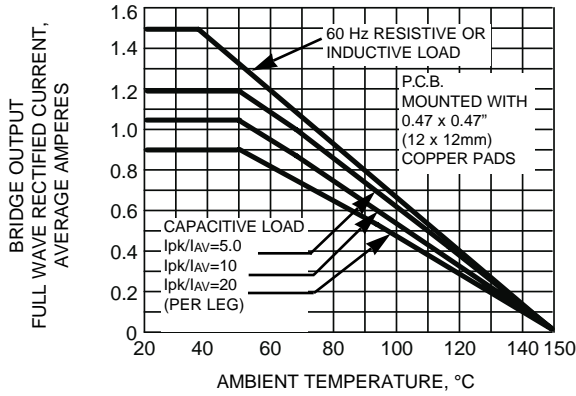


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

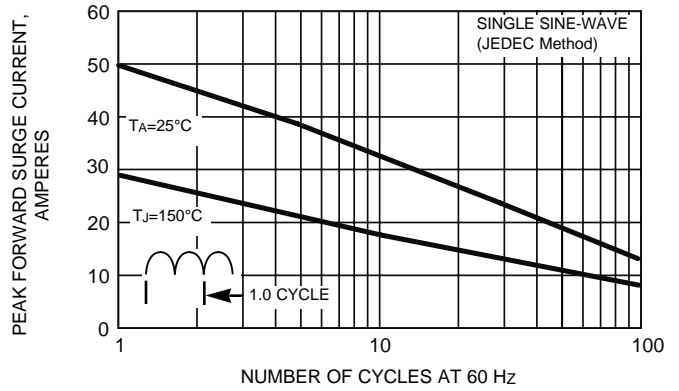


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

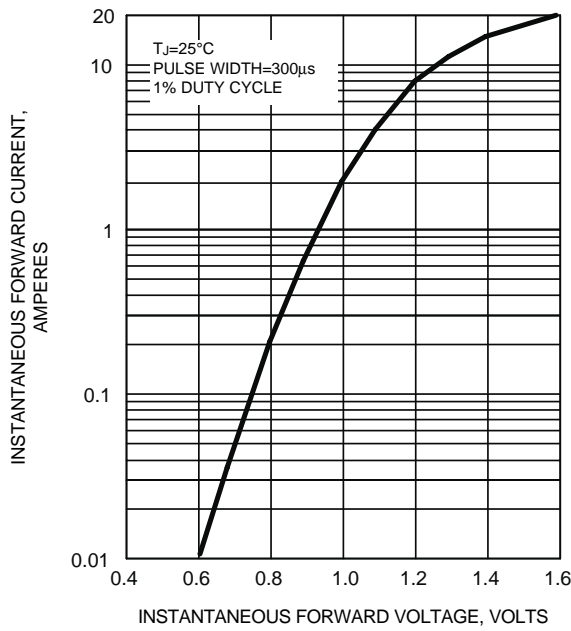


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

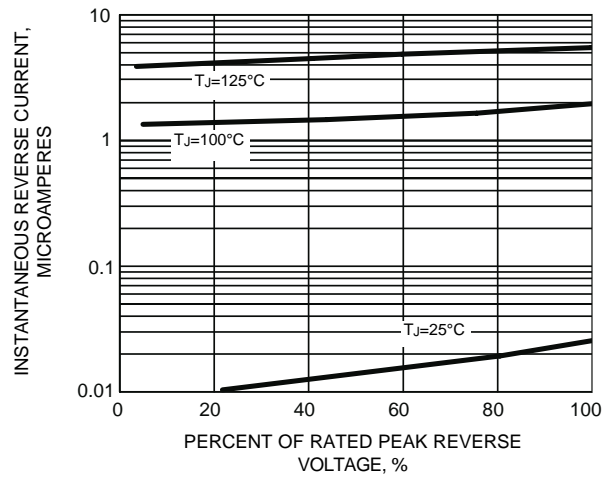


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

