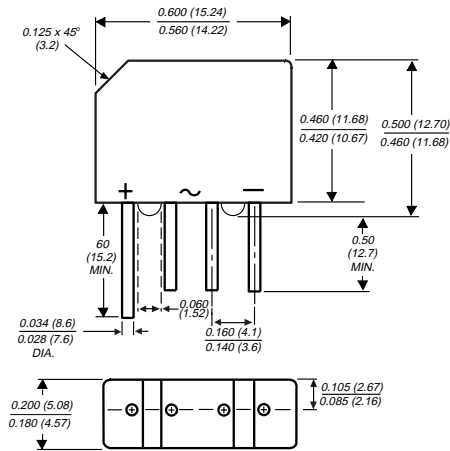


# 2KBP005M THRU 2KBP10M SERIES 3N253 THRU 3N259

**GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER**  
Reverse Voltage - 50 to 1000 Volts    Forward Current - 2.0 Amperes

## Case Style KBPM

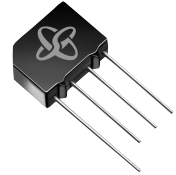


Polarity shown on front side of case: positive lead by beveled corner

Dimensions in inches and (millimeters)

## FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ This series is UL listed under the Recognized Component Index, file number E54214
- ◆ Glass passivated chip junctions
- ◆ Typical  $I_R$  less than  $0.1\mu A$
- ◆ High case dielectric strength
- ◆ 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  
**Mounting Position:** Any  
**Weight:** 0.06 ounce, 1.7 grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

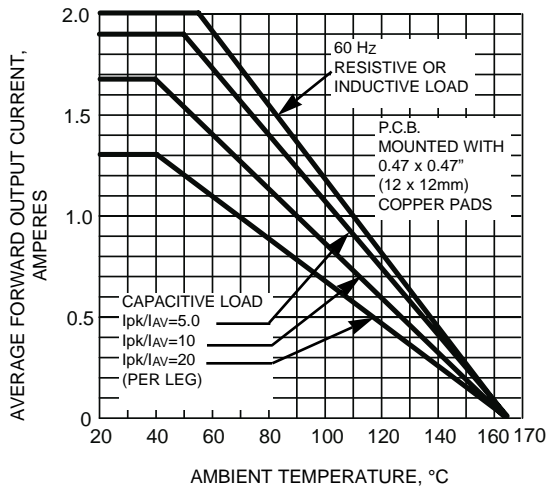
	SYMBOLS	2KBP 005M 3N253	2KBP 01M 3N254	2KBP 02M 3N255	2KBP 04M 3N256	2KBP 06M 3N257	2KBP 08M 3N258	2KBP 10M 3N259	UNITS
* Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
* Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
* Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
* Maximum average forward output rectified current at $T_A=55^\circ C$	$I_{(AV)}$	2.0							Amps
* Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ C$	$I_{FSM}$	60.0							Amps
Rating for fusing ( $t < 8.3ms$ )	$I^2t$	15.0							$A^2sec$
* Maximum instantaneous forward voltage drop per leg at 3.14A	$V_F$	1.1							Volts
* Maximum DC reverse current at rated DC blocking voltage per leg	$I_R$	5.0 500.0							$\mu A$
Typical junction capacitance per leg (NOTE 1)	$C_J$	25.0							pF
Typical thermal resistance per leg (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	30.0 11.0							$^\circ C/W$
* Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +165							$^\circ C$

### NOTES:

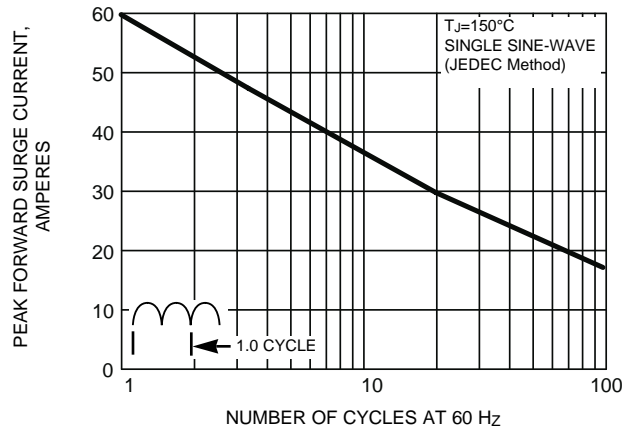
- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
  - (2) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with  $0.47 \times 0.47"$  (12 x 12mm) copper pads
- \* JEDEC registered values

# RATINGS AND CHARACTERISTICS CURVES 3N253 THRU 3N259 / 2KBP005M THRU 2KBP10M

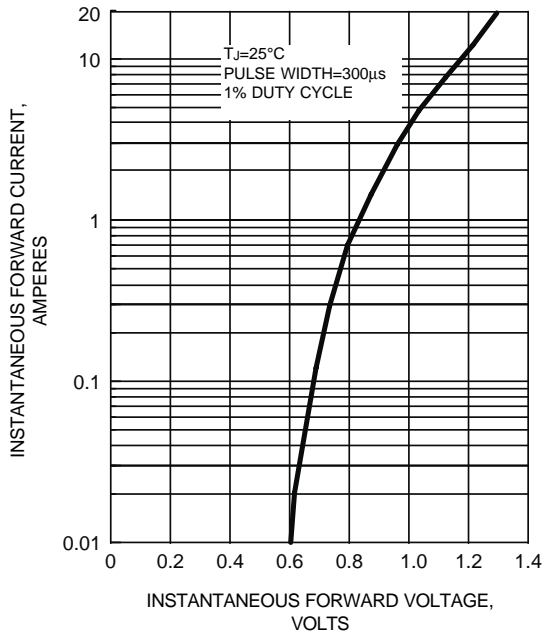
**FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT**



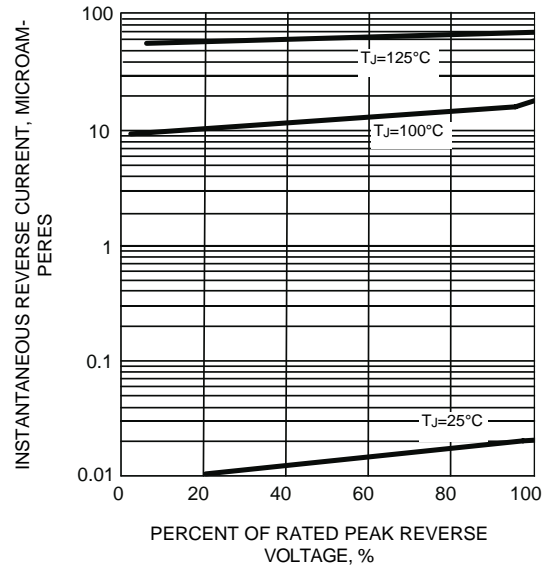
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



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



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



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

