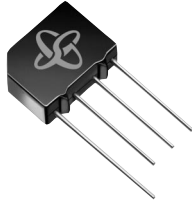


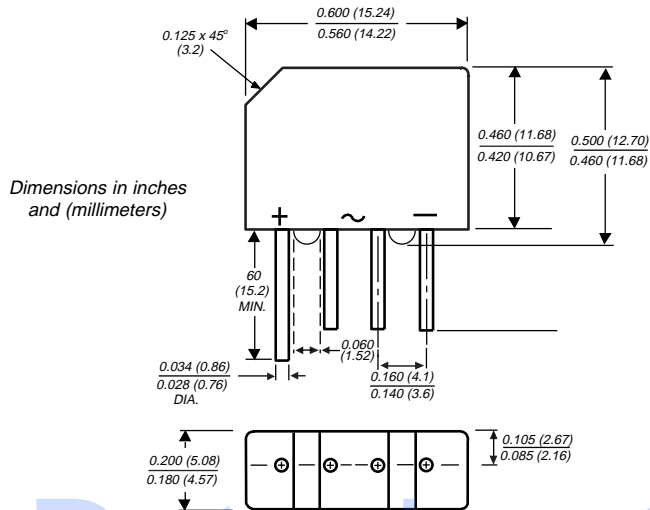
2KBP005M thru 2KBP10M 3N253 thru 3N259

Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 50 to 1000 V
Forward Current 2.0 A



Case Style KBPM



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 ounce, 1.7 grams

Maximum Ratings & Thermal Characteristics

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

| | 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 ² sec |
| Typical thermal resistance per leg (NOTE 1) | $R_{\theta JA}$ $R_{\theta JL}$ | 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.

| | SYMBOLS | 2KBP 005M | 2KBP 01M | 2KBP 02M | 2KBP 04M | 2KBP 06M | 2KBP 08M | 2KBP 10M | UNITS |
|---|---------|------------|----------|----------|----------|----------|----------|----------|---------|
| | | 3N253 | 3N254 | 3N255 | 3N256 | 3N257 | 3N258 | 3N259 | |
| * Maximum instantaneous forward voltage drop per leg at 3.14A | V_F | 1.1 | | | | | | | V |
| * Maximum DC reverse current at rated DC blocking voltage per leg $T_A=25^\circ C$ $T_A=125^\circ C$ | I_R | 5.0 500 | | | | | | | μA |
| 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, 0.47×0.47 " (12 x12mm) 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

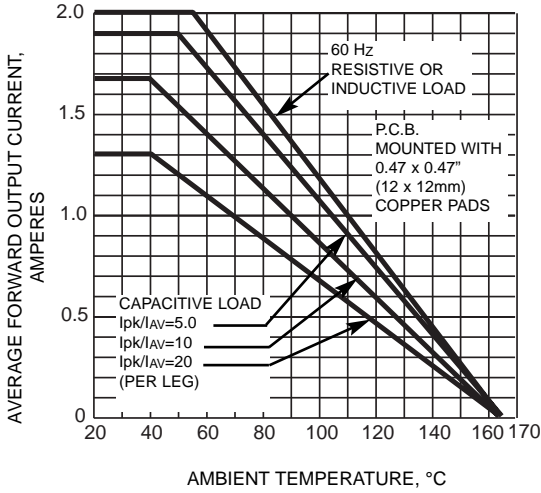


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

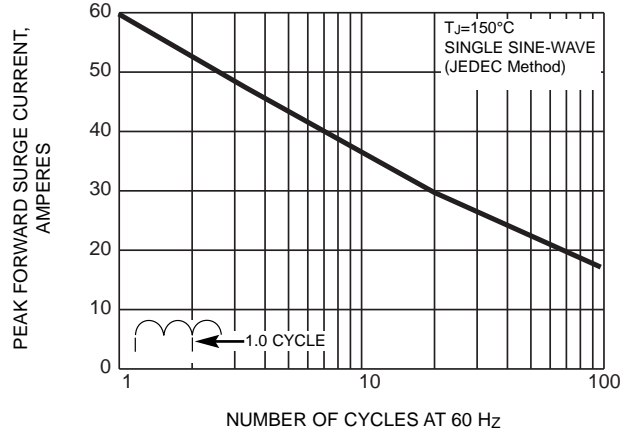


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

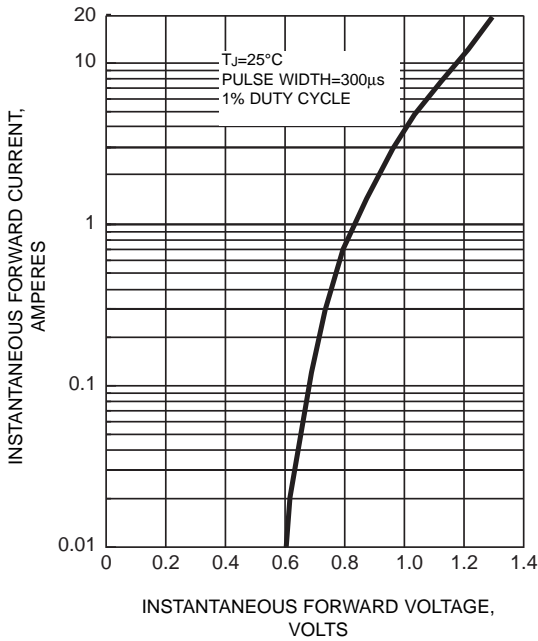


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

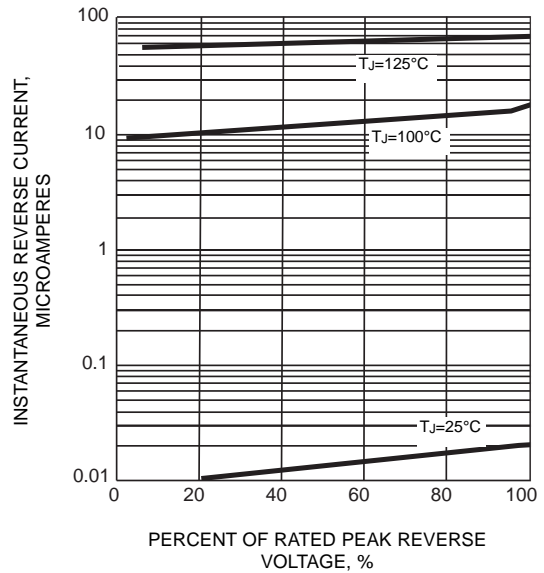


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

