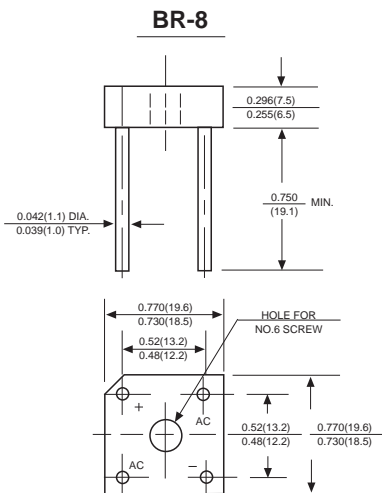


KPBC8005 THRU KPBC810 AND BR805 THRU BR810

SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 8.0 Amperes



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds, at 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on case

Mounting: Thru hole for #6 serew, 5in.-lbs. torque max.

Weight: 0.20 ounce, 5.62 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| | SYMBOLS | KPBC 8005 BR805 | KPBC 801 BR81 | KPBC 802 BR82 | KPBC 804 BR84 | KPBC 806 BR86 | KPBC 808 BR88 | KPBC 810 BR810 | 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 current at | $I_{(AV)}$ | $T_C=50^\circ\text{C}$ (Note 1) | | | | | | | 8.0 | Amps |
| rectified current at | | $T_C=100^\circ\text{C}$ (Note 1) | | | | | | | 6.0 | |
| | | $T_A=50^\circ\text{C}$ (Note 2) | | | | | | | 6.0 | |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 125.0 | | | | | | | Amps | |
| Rating for Fusing ($t < 8.3\text{ms}$) | I^2t | 64 | | | | | | | A^2s | |
| Maximum instantaneous forward voltage drop per bridge element at 4.0A | V_F | 1.1 | | | | | | | Volts | |
| Maximum DC reverse current at rated DC blocking voltage | I_R | $T_A=25^\circ\text{C}$ | | | | | | | 10 | μA |
| | | $T_A=100^\circ\text{C}$ | | | | | | | 1.0 | mA |
| Isolation voltage from case to leads | V_{ISO} | 2500 | | | | | | | V_{AC} | |
| Typical Thermal Resistance (Note 1) | R_{qJA} | 6.0 | | | | | | | $^\circ\text{C}/\text{W}$ | |
| Operating junction temperature range | T_J | -55 to +125 | | | | | | | $^\circ\text{C}$ | |
| storage temperature range | T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ | |

NOTES:

1. Unit mounted on 8.7" x 8.7" x 0.24" thick (22x22x0.6cm) Al. plate.

2. Unit mounted on P.C. board with 0.47" x 0.47" (12x12mm) copper pads, 0.375" (9.5mm) lead length.

RATINGS AND CHARACTERISTIC CURVES KPBC8005 THRU KPBC810 AND BR805 THRU BR810

