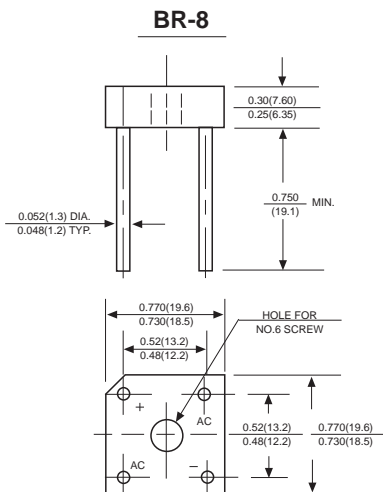


KBPC8005 THRU KBPC810 AND BR805 THRU BR810

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: 0.20ounce, 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 | KBPC 8005 BR805 | KBPC 801 BR81 | KBPC 802 BR82 | KBPC 804 BR84 | KBPC 806 BR86 | KBPC 808 BR88 | KBPC 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 rectified current at | Tc=50°C (Note 1) | I _(AV) | 8.0 | | | | | | | Amps |
| | Tc=100°C (Note 1) | | 6.0 | | | | | | | |
| | TA=50°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<8.3ms) | | I ² _t | 64 | | | | | | | A ² s |
| 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 | TA=25°C | I _R | 10 | | | | | | | μA |
| | TA=100°C | | 1.0 | | | | | | | mA |
| Isolation voltage from case to leads | | V _{ISO} | 2500 | | | | | | | V _{AC} |
| Typical Thermal Resistance (Note 1) | | R _{θJA} | 6.0 | | | | | | | °C/W |
| Operating junction temperature range | | T _J | -55 to +125 | | | | | | | °C |
| storage temperature range | | T _{STG} | -55 to +150 | | | | | | | °C |

NOTES:

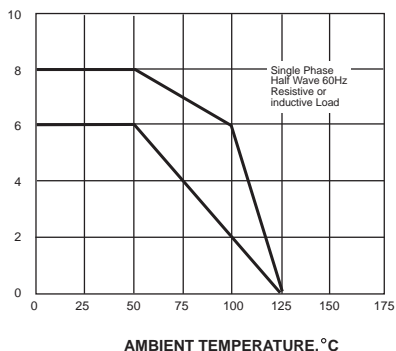
1. Unit mounted on 8.7" x 8.7" x 0.24" thick (22x22x0.6cm) Al. plate.

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 KBPC8005 THRU KBPC810 AND BR805 THRU BR810

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

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

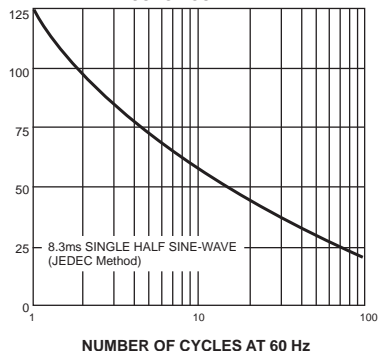
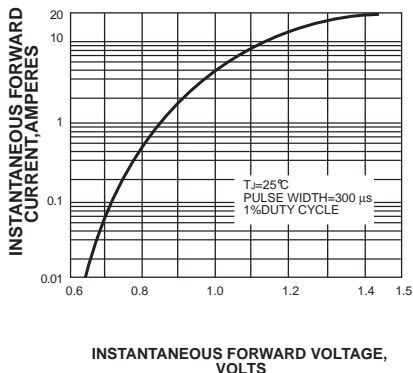


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

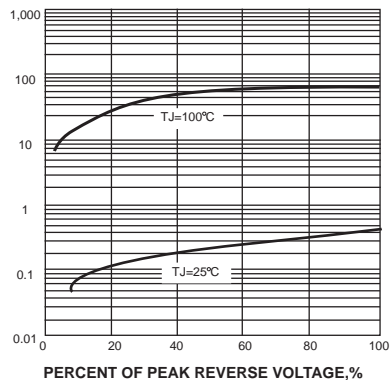
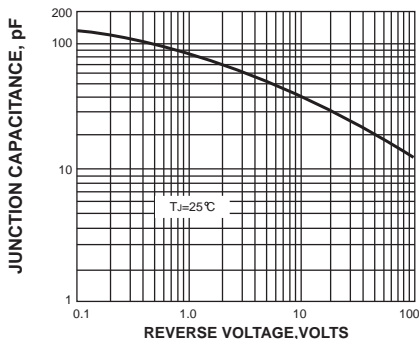


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

