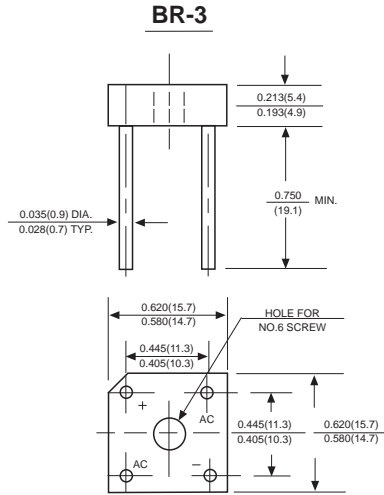


# KPBC1005 THRU KPBC110 AND BR305 THRU BR310

## SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 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 screw, 5in.-lbs. torque max.

**Weight:** 0.093 ounce, 2.62 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 current capacitive load derate by 20%.

	SYMBOLS	KPBC 1005 BR305	KPBC 101 BR31	KPBC 102 BR32	KPBC 104 BR34	KPBC 106 BR36	KPBC 108 BR38	KPBC 110 BR310	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 $T_A=50^\circ\text{C}$ (Note 2) $T_A=25^\circ\text{C}$ (Note 3)	$I_{(AV)}$	3.0 2.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	60							Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	15							$\text{A}^2\text{s}$
Maximum instantaneous forward voltage drop per bridge element at 1.5A	$V_F$	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	$I_R$	10 0.5							 mA mA
Typical Junction Capacitance (Note 1)	$C_J$	20							pF
Typical Thermal Resistance (Note 2)	$R_{qJA}$	12							$^\circ\text{C}/\text{W}$
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. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

2. Unit mounted on 4.0" x 4.0" x 0.11" thick (10.5x10.5x0.3cm) Al. plate.

3. Unit mounted on P.C. board with 0.5" x 0.5" (12x12mm) copper pads, 0.375" (9.5mm) lead length.