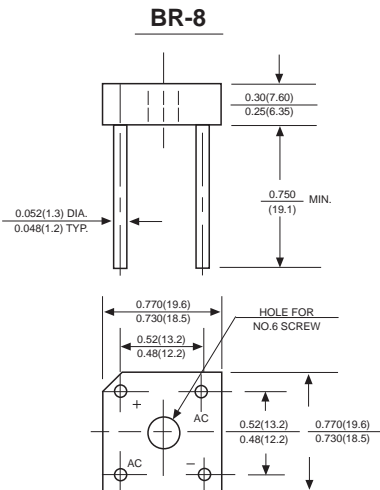




KBPC8005 THRU KBPC810

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: 0.200 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%.

TWGMC Catalog Number	SYMBOLS	KBPC 8005	KBPC 801	KBPC 802	KBPC 804	KBPC 806	KBPC 808	KBPC 810	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}	$T_C=50^\circ C$ (Note 1)							Amps
		$T_C=100^\circ C$ (Note 1)							
		$T_A=50^\circ C$ (Note 2)							
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	I_R	$T_A=25^\circ C$							μA
		$T_A=100^\circ C$							mA
Isolation voltage from case to leads	V_{ISO}	2500							V_{AC}
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	6.0							°C/W
Operating junction temperature range	T_J	-55 to +125							°C
storage temperature range	T_{STG}	-55 to +150							°C

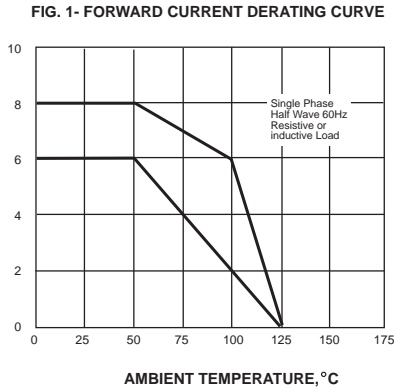
NOTES:

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

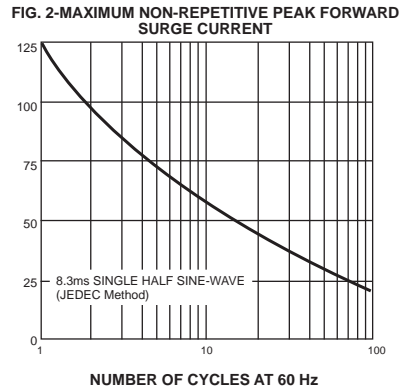
2. Unit mounted on P.C. board with 0.47" x 0.47" (12x12mm) copper pads, 0.375" (9.5mm) lead length.

RATINGS AND CHARACTERISTIC CURVES KBPC8005 THRU KBPC810

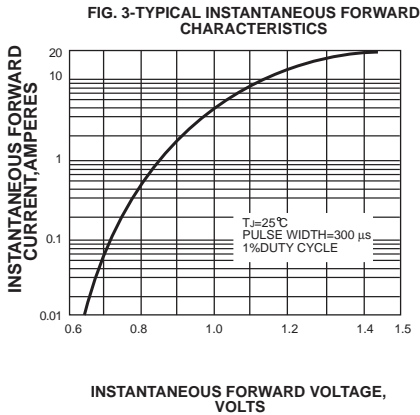
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES



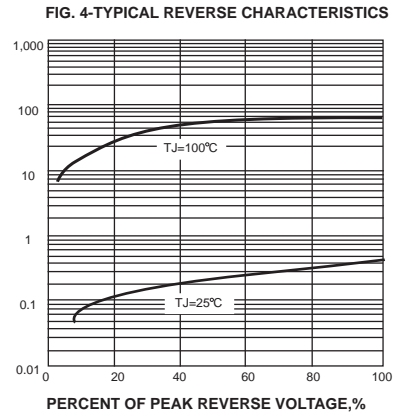
PEAK FORWARD SURGE CURRENT,
AMPERES



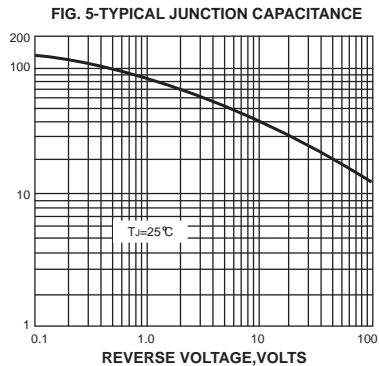
INSTANTANEOUS FORWARD CURRENT, AMPERES



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE, °C/W

