KBPC1005 THRU KBPC110

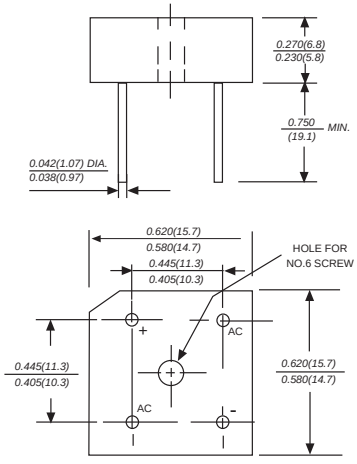
RoHS COMPLIANT

CY Diodes

SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Ampere

KBPC-1



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℃/10 seconds,at 5 lbs. (2.3kg) tension
- Available in both OJ open junction and GPP glass passivated chip junction
- This series is UL recognized component

MECHANICAL DATA

Case: JEDEC KBPC-1 molded plastic
Terminals: Plated leads solderable per MIL-STD-202, Method 208
Polarity: Polarity symbols marked on case
Mounting:Thru hole for #6 screw mounting
Weight:0.093 ounce, 2.62 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase,half wave 60Hz,resistive or inductive load,for current capacitive load, derate by 20%.

	SYMBOLS	KBPC 1005	KBPC 101	KBPC 102	KBPC 104	KBPC 106	KBPC 108	KBPC 110	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=55℃ (Note 1,2)	$I_{(AV)}$	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0							Amps
Rating for Fusing(t<8.3ms)	I^2t	10							A^2s
Maximum instantaneous forward voltage dorp per bridge element at 7.5A	V_F	1.0							Volts
Maximum DC reverse current T_A=25℃	I_R	10							μA
at rated DC blocking voltage T_A=100℃		1							mA
Isolation voltage from case to leads	V_{ISO}	2500							V_{AC}
Operating junction temperature range	T_J	-55 to +125							°C
storage temperature range	T_{STG}	-55 to +150							°C

NOTES:
1.Unit mounted on 5 ” x 4 ” x3 ” thick(12.8cmx10.2cmx7.3cm)Al.plate.
2.Bolt dowm on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #6 screw.

FIG. 1- FORWARD CURRENT DERATING CURVE

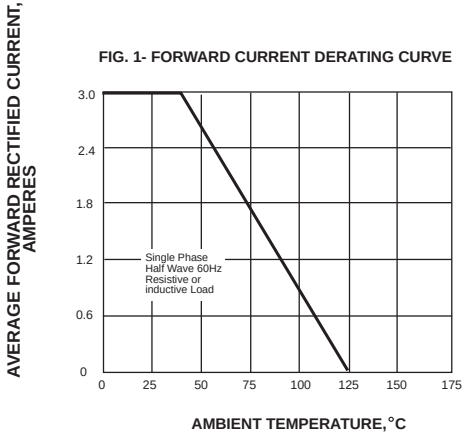


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

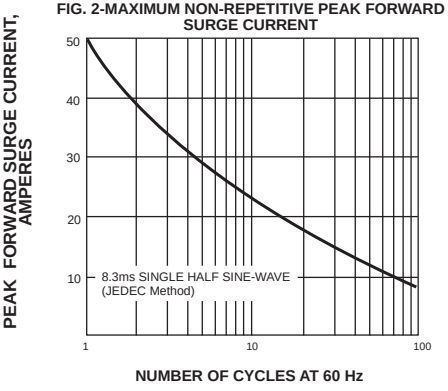


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

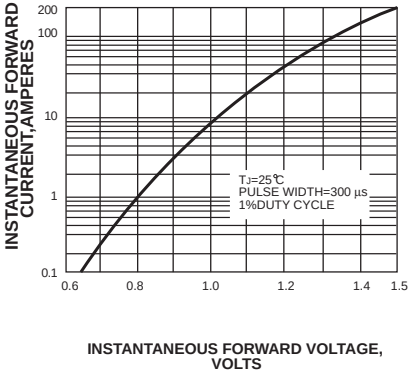


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

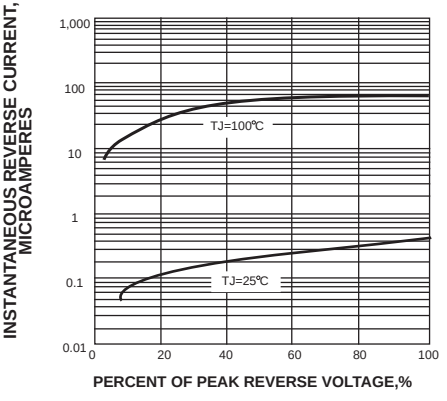


FIG. 5-TYPICAL JUNCTION CAPACITANCE

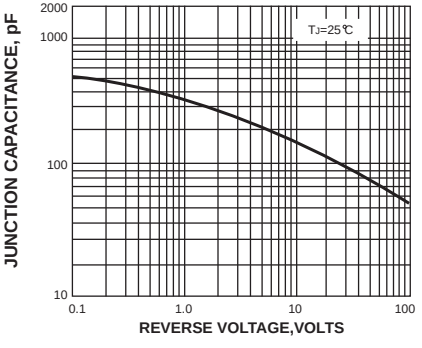


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE