

VOLTAGE RANGE: 50 - 1000V

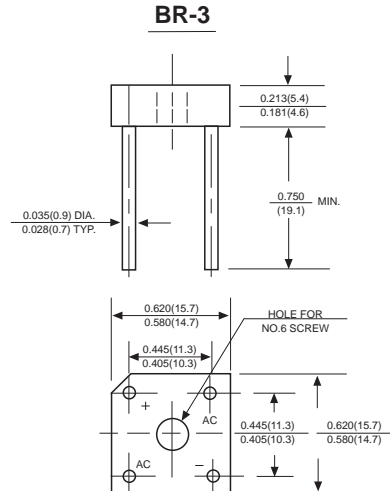
CURRENT: 3.0 A

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, 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



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

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

MDD Catalog Number	Symbol	KBPC 1005	KBPC 101	KBPC 102	KBPC 104	KBPC 106	KBPC 108	KBPC 110	Unit	
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) and $T_A=25^\circ\text{C}$ (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				A^2s
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 $T_A=25^\circ\text{C}$ and $T_A=100^\circ\text{C}$	I_R					10				μA
						0.5				mA
Typical Junction Capacitance (Note 1)	C_J					20				pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$					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:

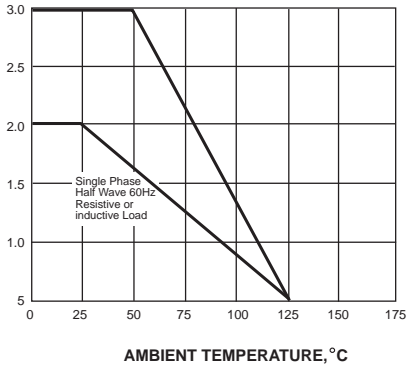
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on 4.0" x 4.0" x 0.11" thick (10.5x10.5x0.3cm) Al. plate.
3. Unit mounted on P.C. board with 0.5" x 0.5" (12x12mm) copper pads, 0.375" (9.5mm) lead length.



RATINGS AND CHARACTERISTIC CURVES KBPC1005 THRU KBPC110

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

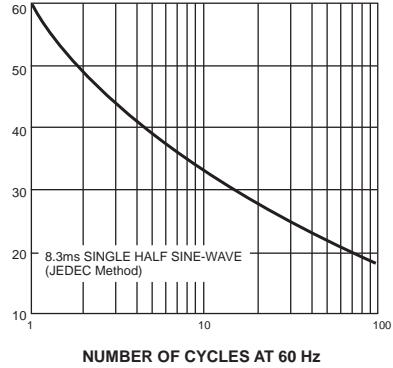
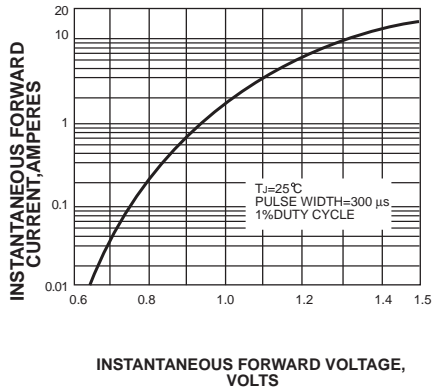


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

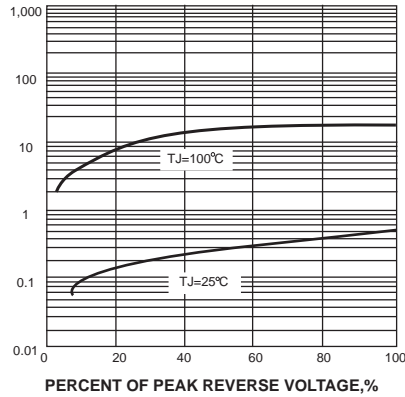
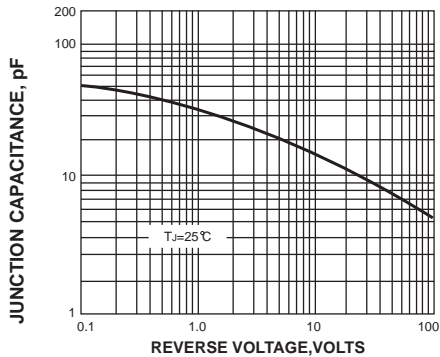


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

