

10 A Single-Phase Silicon Bridge Rectifier Rectifier Reverse Voltage 50 to 1000V

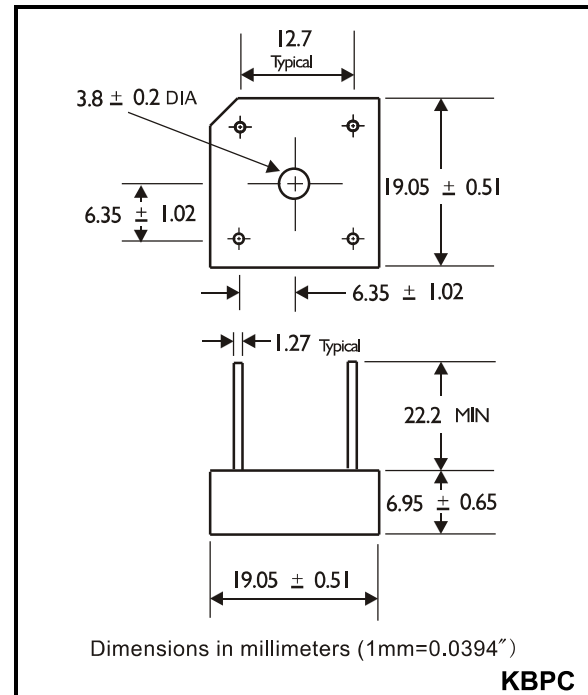
FEATURES

- ◆ This series is UL listed under the Recognized Component Index, file number E142814
- ◆ High temperature metallurgically bonded internal rectifiers
- ◆ Typical IR less than .1 uA
- ◆ The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- ◆ High temperature soldering guaranteed 265 /10 seconds at 5 lbs (2.3kg) tension



MECHANICAL DATA

- ◆ Case: Voil-free plastic package
- ◆ Terminals: Plated leads solderable per MIL-STD-202, Method 208
- ◆ Mounting: Thru hole for #6 screw
- ◆ Weight: 0.24 ounce, 6.9 grams (approx):



Maximum Ratings And Electrical Characteristics

Rating at 25 c ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.For Capacitive load derate current by 20%.

Parameter	Symbols	KBPC 10005	KBPC 1001	KBPC 1002	KBPC 1004	KBPC 1006	KBPC 1008	KBPC 1010	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at TC=50°C(1)	$I_{(AV)}$	10							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A
Rating for fusing (t<8.3ms)	I_{2t}	10							A ² sec
Typical thermal resistance per element (2)	ReJA	9.4							C / W
Typical junction capacitance per element(3)	Cj	55							pF
Maximum instantaneous forward voltage drop per leg at 5.0A	V_F	1.1							V
Maximum DC reverse current at rated TA=25°CDC blocking voltage per element TA=100°C	I_R	10 1000							μA
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							°C

(1) Mounted on metal chassis.

(2) Non-repetitive, for t>1ms and < 8.3ms.

(3) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

Rating and Characteristic Curves (TA=25°C Unless otherwise noted)
KBPC1005 thru KBPC1010

Fig. 1 Derating Curve for Output Rectified Current

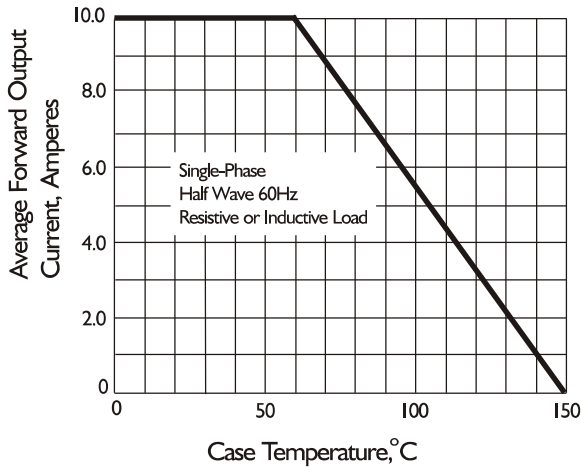


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

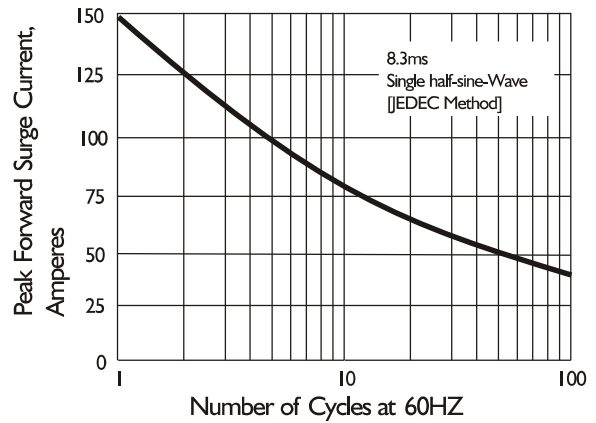


Fig. 3 Typical Instantaneous Forward Characteristics

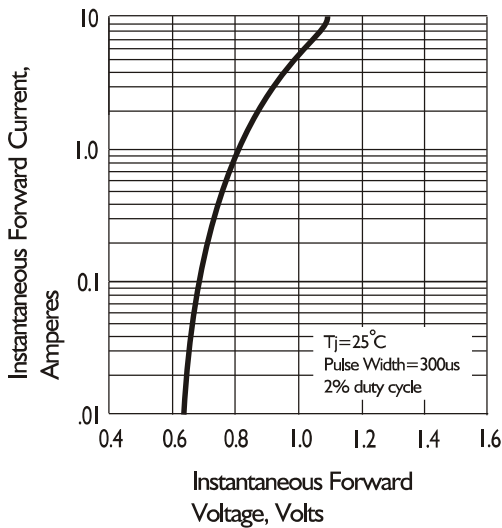
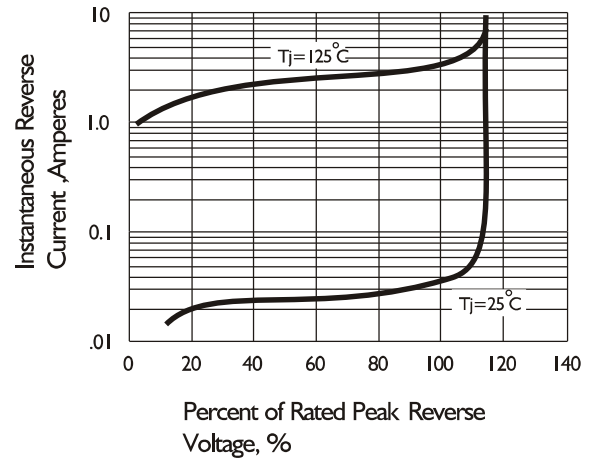
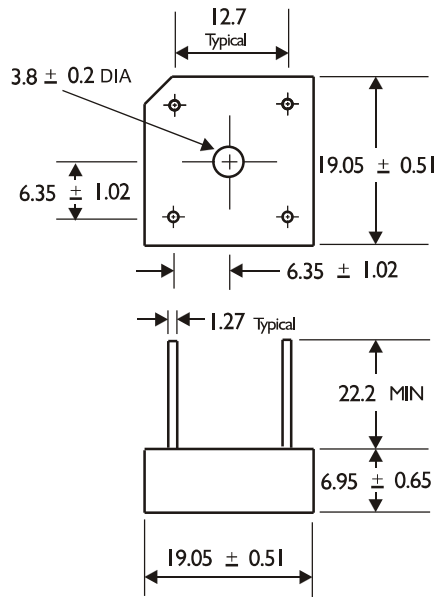


Fig. 4 Typical Reverse Characteristics



Package Outline

KBPC



Dimensions in millimeters (1mm=0.0394")

Summary of Packing Options

Package	Package Description	Packing Quantity	Industry Standard
KBPC	BOX	200	EIA-481-1