

6A HIGH CURRENT SINGLE-PHASE SILICON BRIDGE RECTIFIER

Voltage - 100 to 1000 V

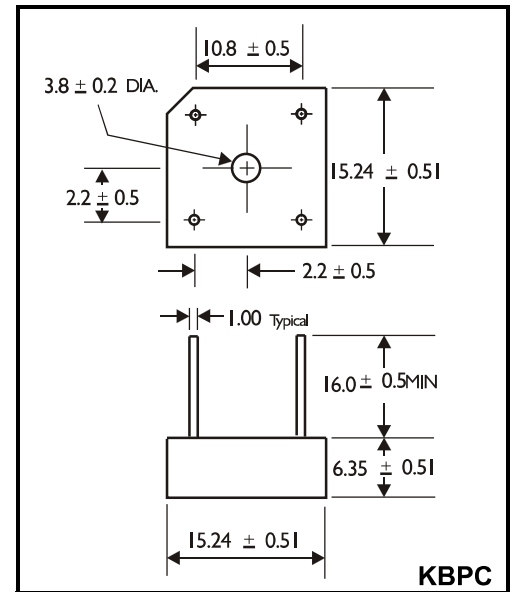
Forward Current – 6 A

FEATURES

- ◆ 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
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: KBPC
- ◆ Terminals: Solderable per MIL-STD-202, Method 208
- ◆ Weight: 3.8 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	KBPC601	KBPC602	KBPC604	KBPC606	KBPC608	KBPC610	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at TC=75°C(1)	$I_{(AV)}$	6.0						A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125						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 3.0A	V_F	1.1						V
Maximum DC reverse current at rated TA=25°C	I_R	10						μA
DC blocking voltage per element TA=100°C	I_R	1000						
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.

Fig. 1 Derating Curve for Output Rectified Current

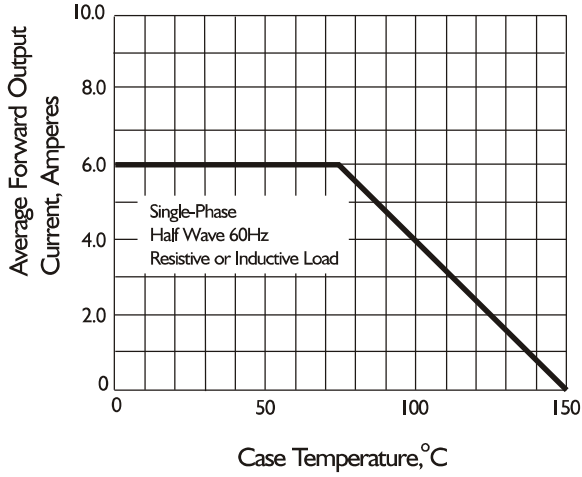


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

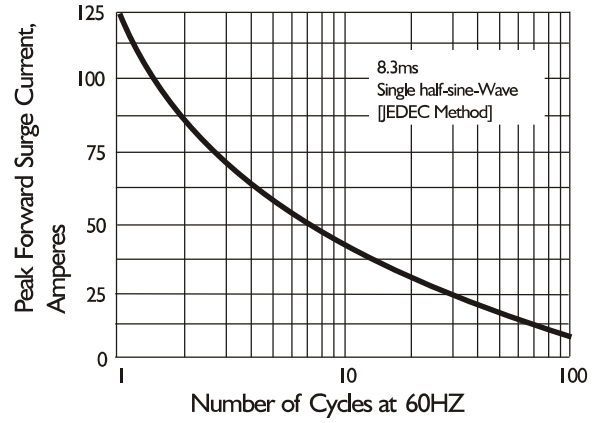


Fig. 3 Typical Instantaneous Forward Characteristics

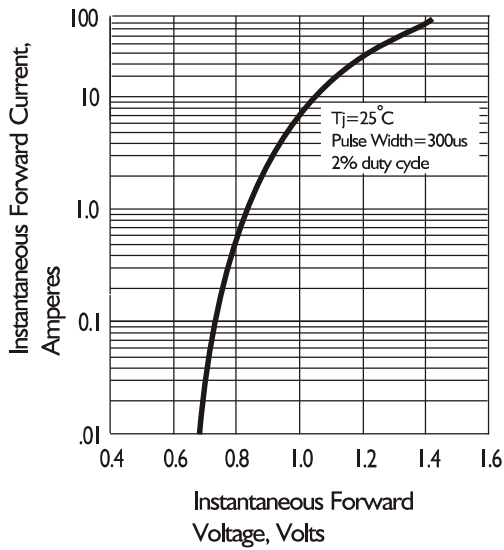
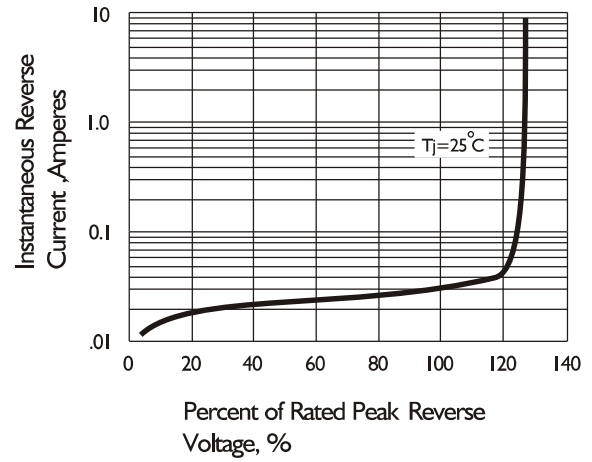
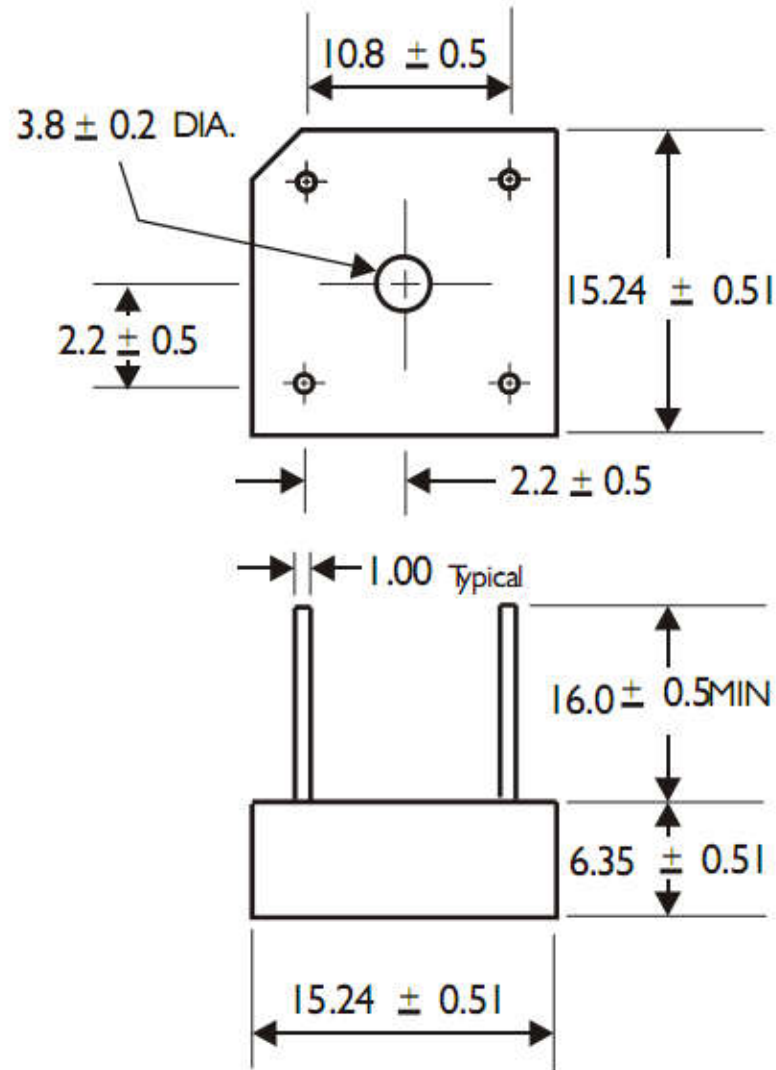


Fig. 4 Typical Reverse Characteristics



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