

**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

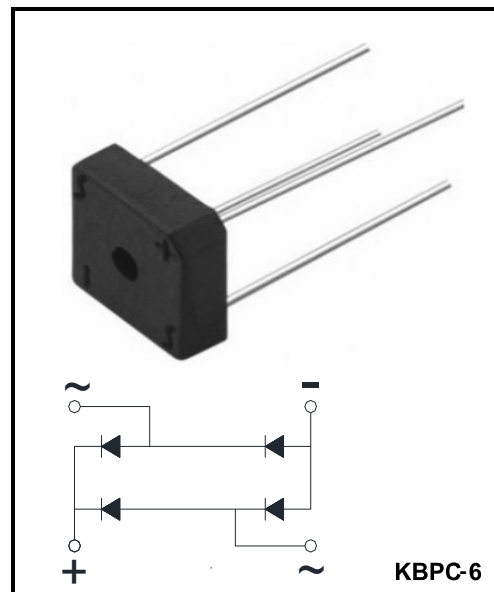
MECHANICAL DATA

- ◆Case: **KBPC-6**
- ◆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℃(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 2 t	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℃	I _R	10						μA
DC blocking voltage per element TA=100℃		1000						
Operating and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150						℃

(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.

Ratings And Characteristic Curves

Fig. 1 Derating Curve for Output Rectified Current

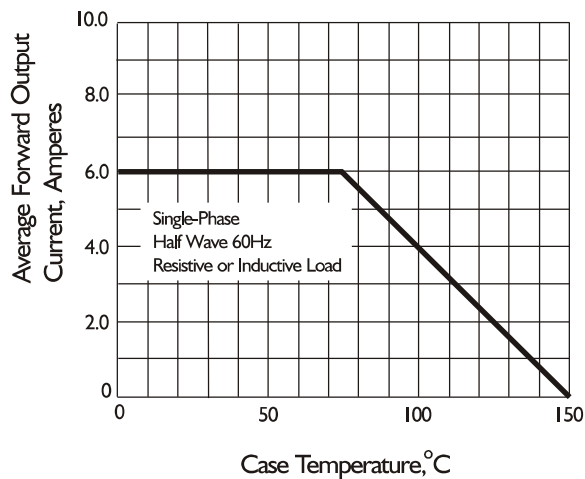


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

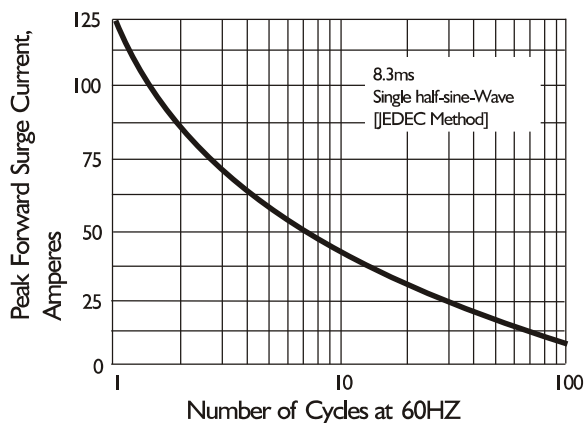


Fig. 3 Typical Instantaneous Forward Characteristics

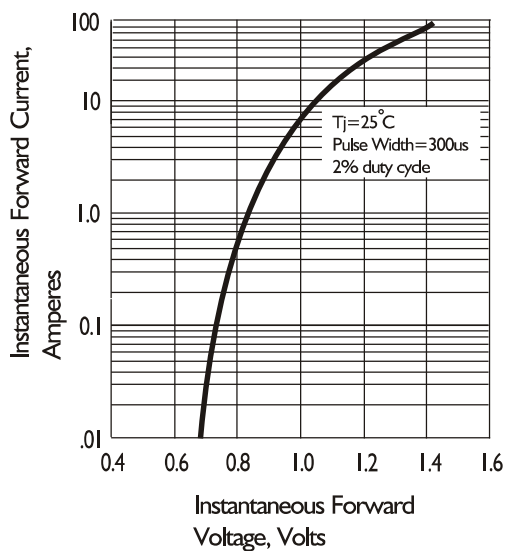
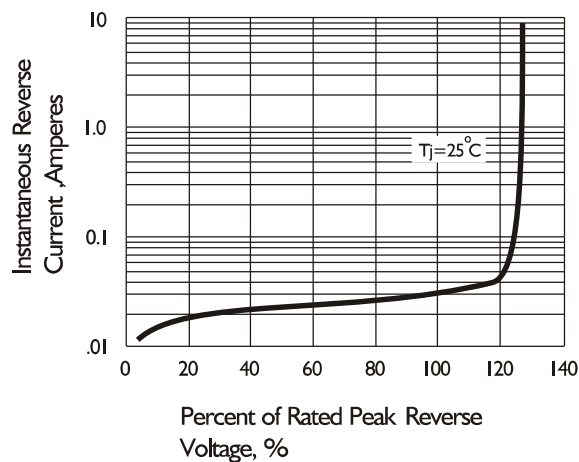
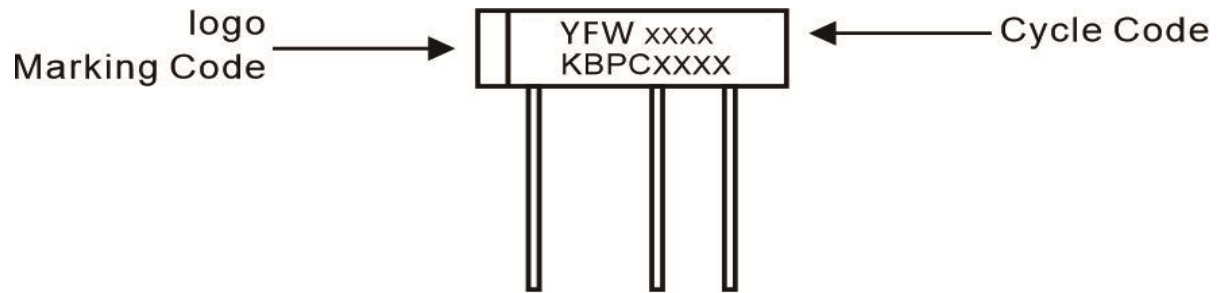


Fig. 4 Typical Reverse Characteristics



Marking Diagram



Ordering information

Package	Packing Description	Packing Quantity
KBPC-6	bulk	200PCS/Box 2000PCS/Carton

Package Dimensions

KBPC-6

Dim.	Millimeter(mm)		Dimensions inInch	
	Min.	Max.	Min.	Max.
A	14.7	15.7	0.579	0.618
B	10.3	11.3	0.406	0.445
C	6.35	7.6	0.250	0.299
D	15.0	-	0.591	-
E	0.95	1.05	0.037	0.041
F	3.8	4.2	0.150	0.165

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