

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

FEATURES

- Suitable for printed circuit board or chassis mounting
- Compact construction
- High surge current capability
- Solder dip 275 °C max. 7s, per JESD 22-B106

MECHANICAL DATA

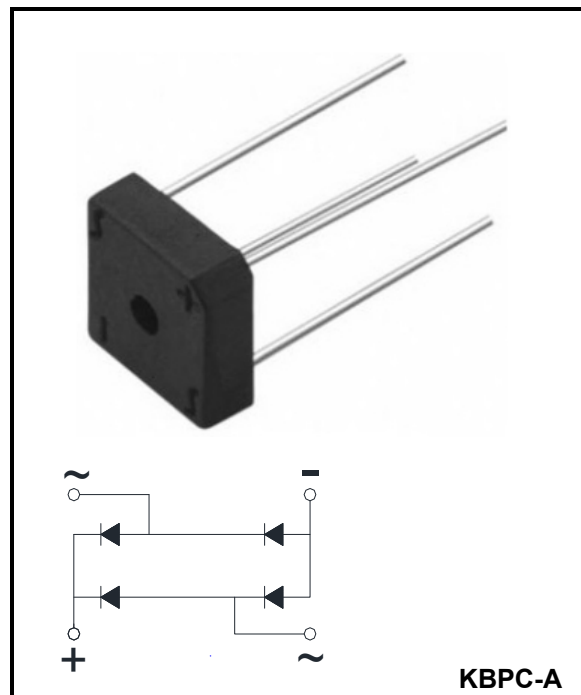
- Package: **KBPC-A**

Molding compound meets UL 94 V-0

flammability rating, RoHS-compliant

- Terminals: Tin plated leads, solderable
per J-STD-002 and JESD22-B102

- Polarity: As marked on body



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 $T_C=50^{\circ}C$ (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)	$R_{\theta JA}$	9.4							C / W
Typical junction capacitance per element (3)	C_j	55							pF
Maximum instantaneous forward voltage drop per leg at 5.0A	V_F	1.1							V
Maximum DC reverse current at rated $T_A=25^{\circ}C$ DC blocking voltage per element $T_A=100^{\circ}C$	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.

Ratings And Characteristic Curves

Fig. 1 Derating Curve for Output Rectified Current

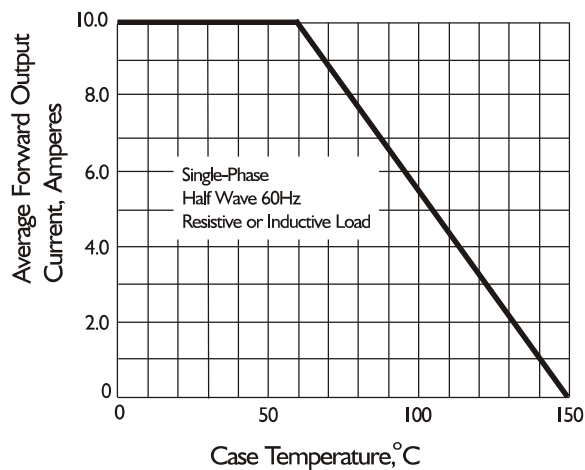


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

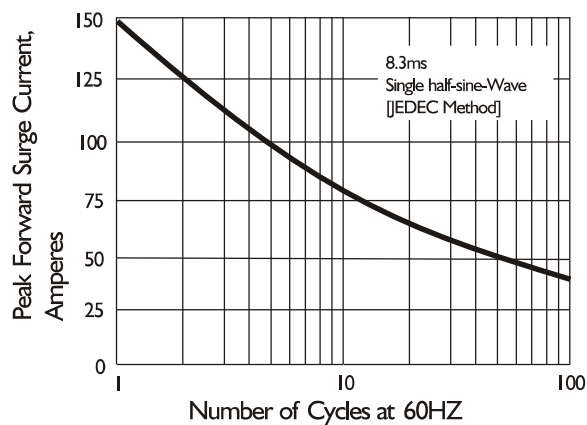


Fig. 3 Typical Instantaneous Forward Characteristics

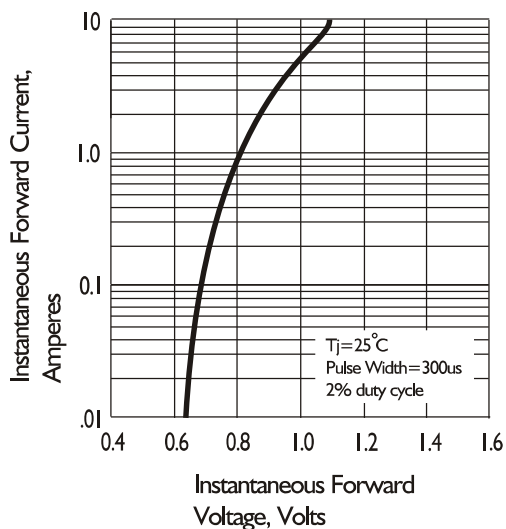
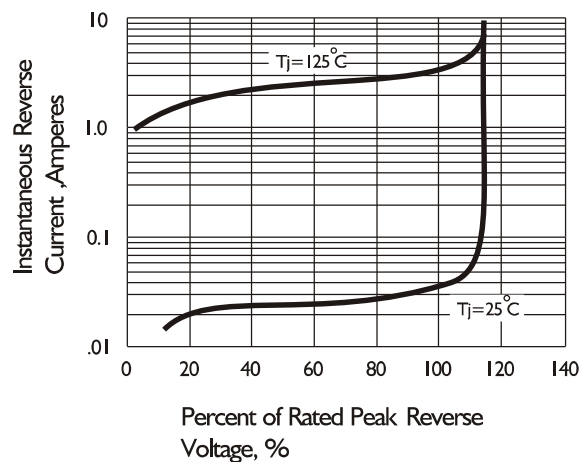
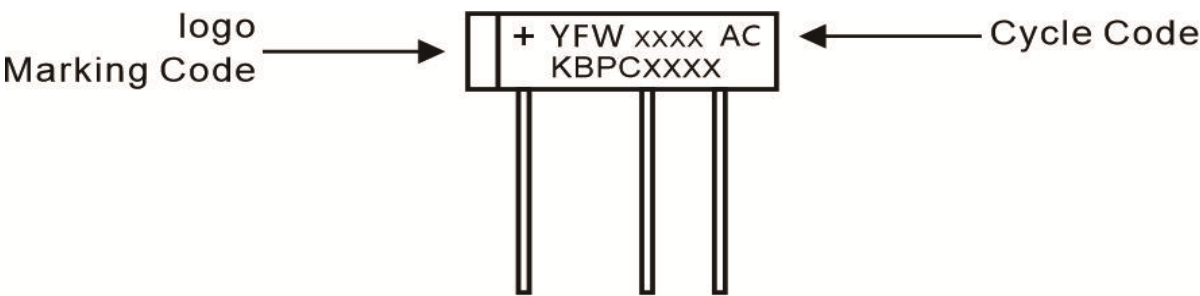


Fig. 4 Typical Reverse Characteristics



Marking Diagram



Ordering information

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

Package Dimensions

KBPC-A

Dim.	Millimeter(mm)		Dimensions inInch	
	Min.	Max.	Min.	Max.
A	18.50	19.50	0.73	0.77
B	12.30	13.30	0.48	0.52
C	0.99	1.59	0.04	0.06
D	3.50	4.10	0.14	0.16
E	9.00	/	0.35	/
F	6.50	7.50	0.26	0.30

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