

### ■ FEATURES

- UL recognition, file #E230084
- Suitable for printed circuit board or chassis mounting
- Compact construction
- High surge current capability
- Solder dip 275 °C max. 7s, per JESD 22-B106

### ■ TYPICAL APPLICATIONS

The KBPC series of single phase rectifier bridge consists of four silicon junctions connected as a full bridge. These devices are intended for general use in industrial and consumer equipment.

### ■ MECHANICAL DATA

- **Package:** KBPC8  
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 (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBPC10005	KBPC1001	KBPC1002	KBPC1004	KBPC1006	KBPC1008	KBPC1010
Device marking code			KBPC10005	KBPC1001	KBPC1002	KBPC1004	KBPC1006	KBPC1008	KBPC1010
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, T <sub>a</sub> =40°C	I <sub>O</sub>	A	10						
Surge(Non-repetitive)Forward Current @60Hz Half- sine Wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	180						
Current Squared Time @1ms≤t≤8.3ms T <sub>j</sub> =25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> S	135						
Storage Temperature	T <sub>stg</sub>	°C	-55 ~+150						
Junction Temperature	T <sub>j</sub>	°C	-55 ~+150						

### ■ ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBPC10005	KBPC1001	KBPC1002	KBPC1004	KBPC1006	KBPC1008	KBPC1010
Maximum instantaneous forward voltage drop per diode	V <sub>FM</sub>	V	I <sub>FM</sub> =5A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	V <sub>RM</sub> =V <sub>RRM</sub>	10						

### ■ THERMAL CHARACTERISTICS (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBPC10005	KBPC1001	KBPC1002	KBPC1004	KBPC1006	KBPC1008	KBPC1010
Thermal Resistance Between junction and ambient	R <sub>θJ-A</sub>	°C/W	19						

### ■ PACKAGING INFORMATION

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBPC10005~KBPC1010	A1	Approximate 4.75	200	200	2000	Paper Box

■ **CHARACTERISTICS (TYPICAL)**

FIG1:Io-Ta Curve

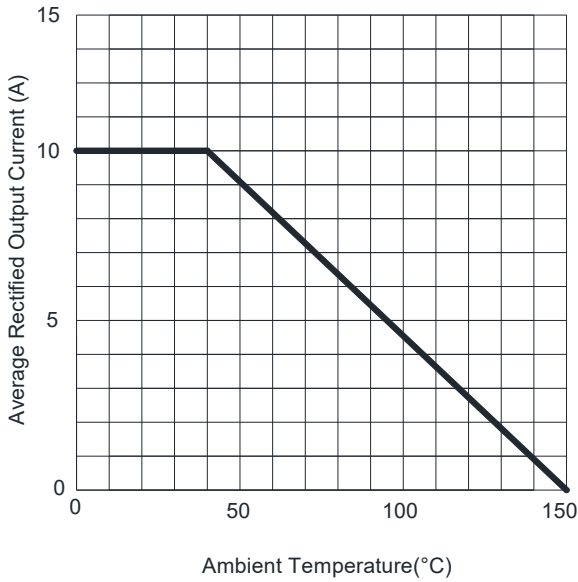


FIG2:Surge Forward Current Capability

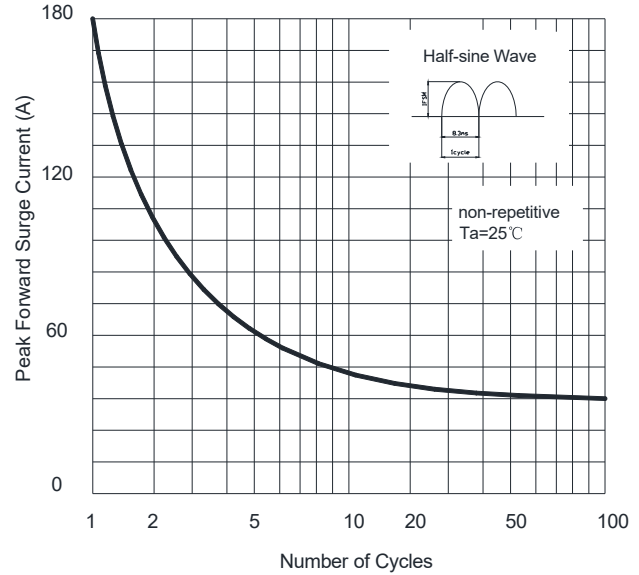


FIG3:Instantaneous Forward Voltage

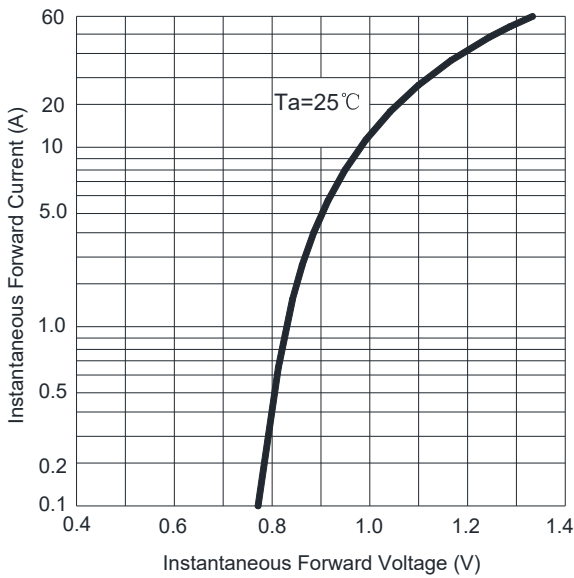
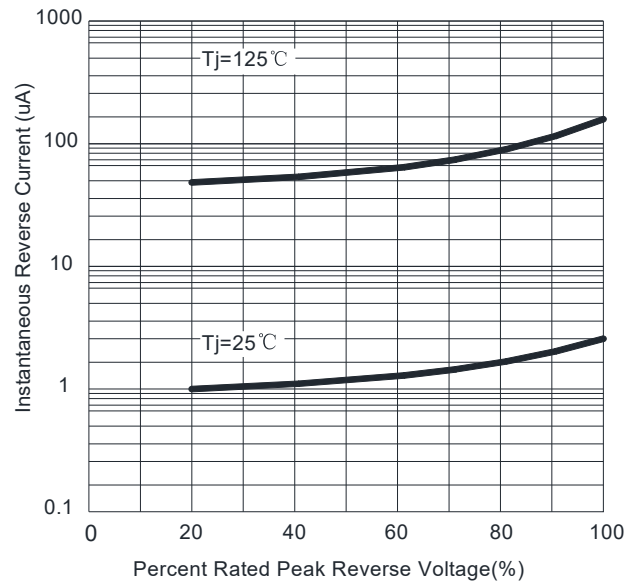
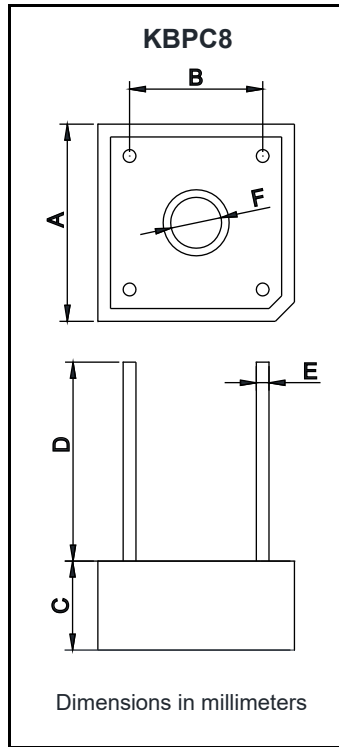


FIG4:Typical Reverse Characteristics



■ **OUTLINE DIMENSIONS**



KBPC8		
Dim	Min	Max
A	18.54	19.58
B	12.2	13.2
C	6.35	7.6
D	15.0	/
E	1.2	1.3
F	3.8	4.2