

## Bridge Rectifiers

### Features

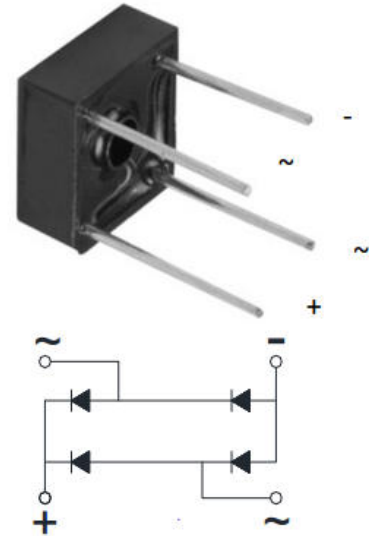
- UL recognition, file #E230084
- Suitable for printed circuit board or chassis mounting
- Compact construction
- High surge current capability
- Solder dip 275 °C max. 7s, per JESD 22-B106

### 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:** KBPC6  
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 ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBPC6005	KBPC601	KBPC602	KBPC604	KBPC606	KBPC608	KBPC610
Device marking code			KBPC6005	KBPC601	KBPC602	KBPC604	KBPC606	KBPC608	KBPC610
Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, $T_a=40^\circ\text{C}$	IO	A	6.0						
Surge(Non-repetitive)Forward Current @60Hz Half- sine Wave, 1 cycle, $T_a=25^\circ\text{C}$	IFSM	A	150						
Current Squared Time @1ms $\leq$ t $\leq$ 8.3ms $T_j=25^\circ\text{C}$ , Rating of per diode	$I^2t$	A <sup>2</sup> S	93						
Storage Temperature	Tstg	°C	-55 ~+150						
Junction Temperature	Tj	°C	-55 ~+150						

### ■ Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBPC6005	KBPC601	KBPC602	KBPC604	KBPC606	KBPC608	KBPC610
Maximum instantaneous forward voltage drop per diode	VFM	V	IFM=3A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM	$\mu\text{A}$	VRM=VRRM	10						

### ■ Thermal Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBPC6005	KBPC601	KBPC602	KBPC604	KBPC606	KBPC608	KBPC610
Thermal Resistance Between junction and ambient	R $\theta$ J-A	°C/W	25						

## ■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBPC6005~KBPC610	A1	Approximate 3.1	200	200	2000	Paper Box

## ■ Characteristics (Typical)

FIG1:Io-Ta Curve

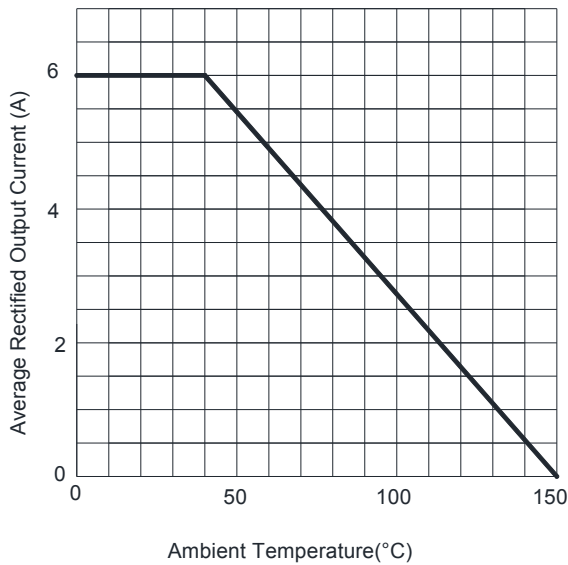


FIG2:Surge Forward Current Capability

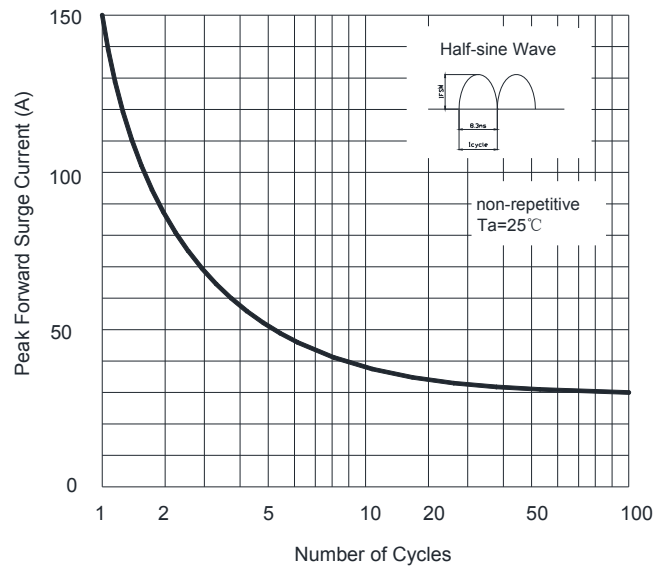


FIG3:Instantaneous Forward Voltage

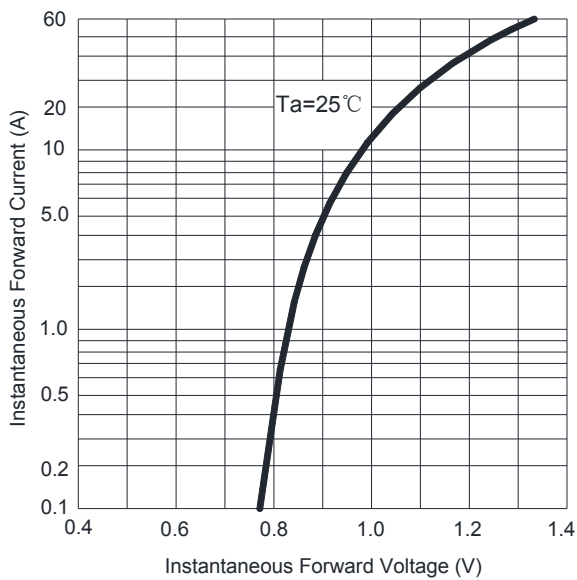
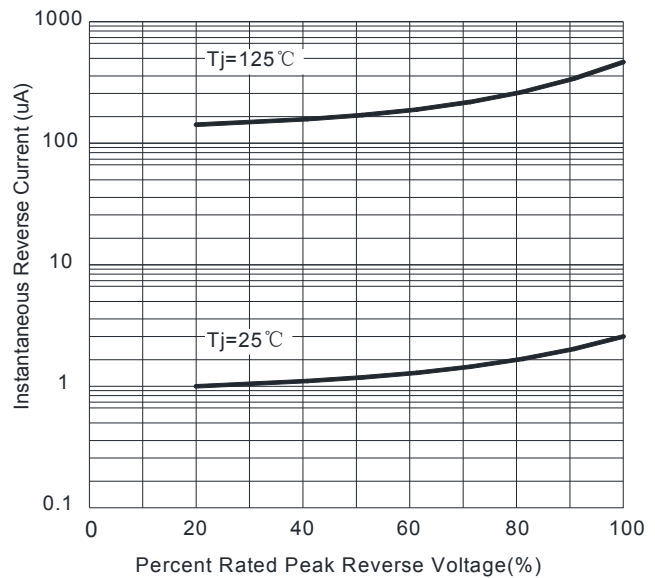
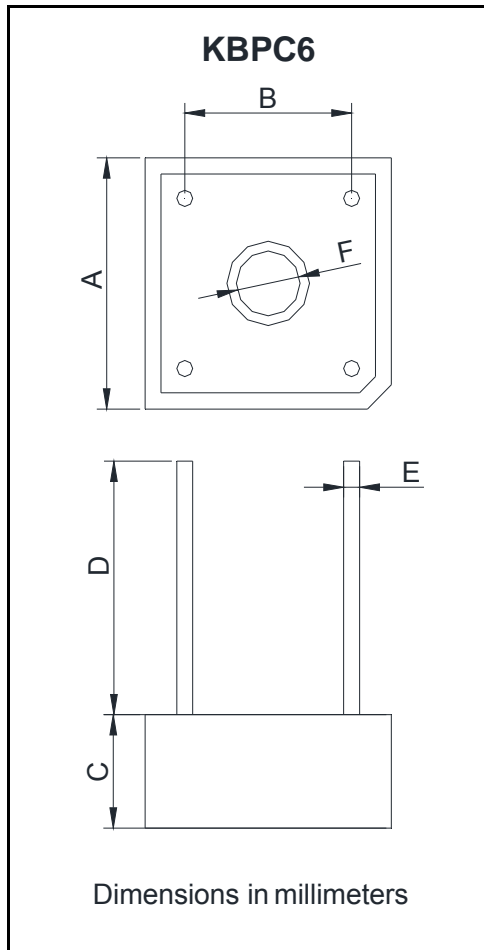


FIG4:Typical Reverse Characteristics



■ Outline Dimensions



KBPC6		
Dim	Min	Max
A	14.7	15.7
B	10.3	11.3
C	6.35	7.6
D	15.0	/
E	0.95	1.05
F	3.8	4.2

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