

Bridge Rectifiers

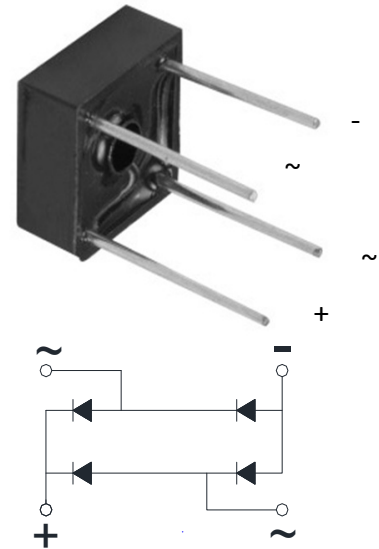
Features

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



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
Suffix letter "W" added
- **Polarity:** As marked on body

Maximum Ratings (TA=25°C unless otherwise noted)

Parameter	Symbol	KBPC 8005	KBPC 801	KBPC 802	KBPC 804	KBPC 806	KBPC 808	KBPC 810	Unit
Device marking code		KBPC 8005	KBPC 801	KBPC 802	KBPC 804	KBPC 806	KBPC 808	KBPC 810	
Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Average Rectified Output Current @60Hz sine Wave, R-load, With heatsink Tc=40°C	I_O	8							A
Surge(Non-repetitive)Forward Current @60Hz Half- sine Wave, 1 cycle, Ta=25°C	I_{FSM}	150							A
Current Squared Time @1ms≤t<8.3ms Tj=25°C, Rating of per diode	I_{2t}	93							A ² S
Storage Temperature	Tstg	-55 ~+150							°C
Junction Temperature	T _J	-55 ~+150							°C

Electrical Characteristics (T _A =25°C unless otherwise noted)											
Parameter	Symbol	Test Conditions	KBPC 8005	KBPC 801	KBPC 802	KBPC 804	KBPC 806	KBPC 808	KBPC 810	Unit	
Maximum instantaneous forward voltage drop per diode	V _{FM}	IFM=4A	1.1								V
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	V _{RM} =V _{RRM}	10								μA

Thermal Characteristics (T _A =25°C unless otherwise noted)										
Parameter	Symbol	KBPC 8005	KBPC 801	KBPC 802	KBPC 804	KBPC 806	KBPC 808	KBPC 810	Unit	
Thermal Resistance Maximum instantaneous forward voltage drop per diode	R _{θJ-A}	21								°C/W

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG1: I_o - T_a Curve

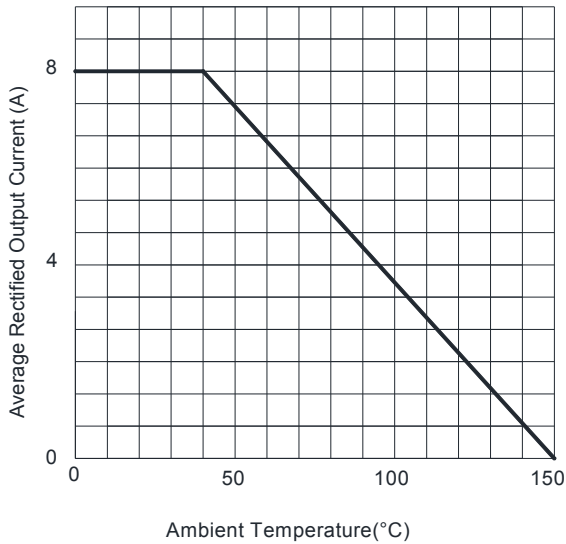


FIG2: Surge Forward Current Capability

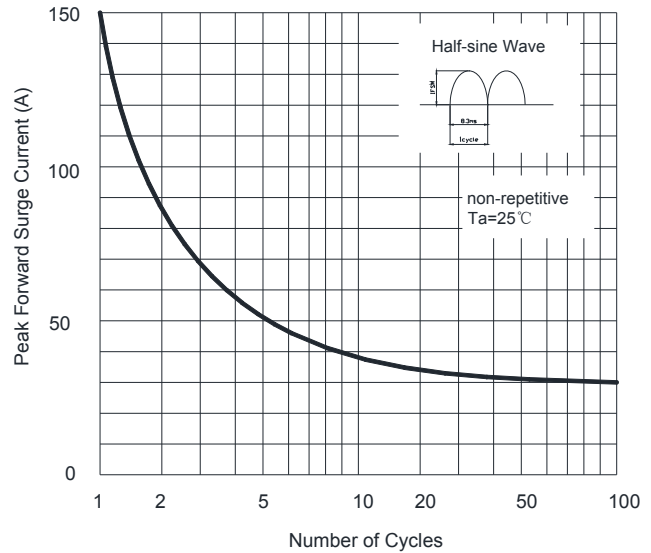


FIG3: Instantaneous Forward Voltage

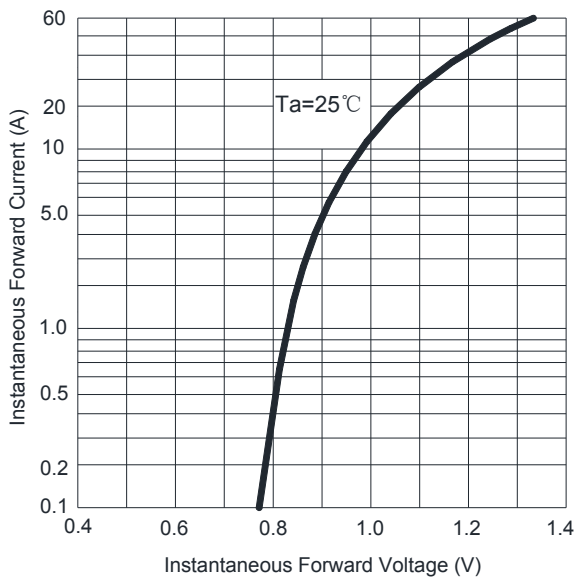
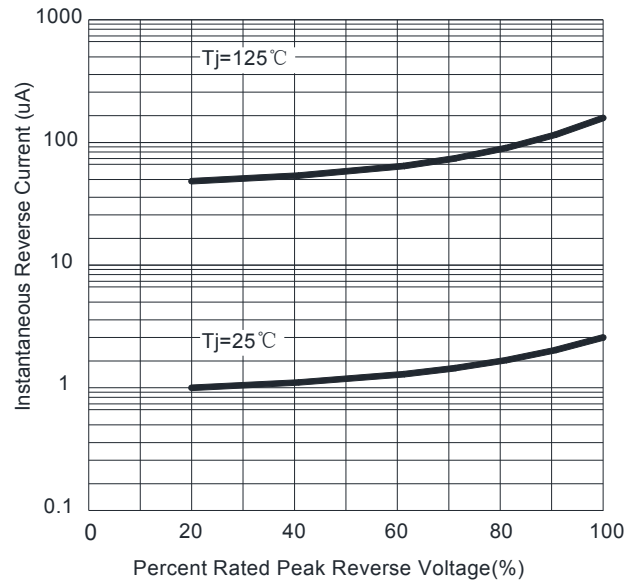
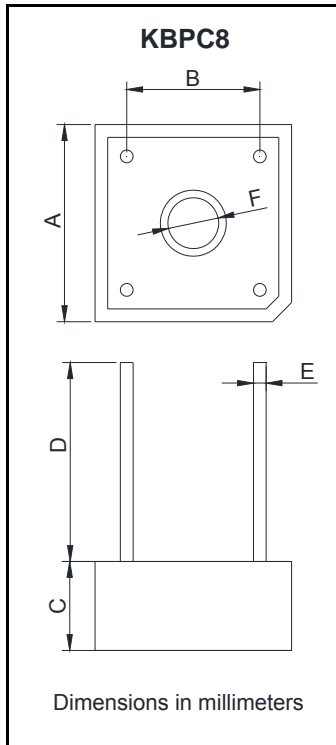


FIG4: Typical Reverse Characteristics



Package Outline Dimensions

in inches (millimeters)



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

Revision History

Document Version	Date of release	Description of changes
Rev.A	2014.04.28	First issue

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