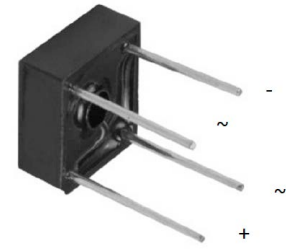


Features

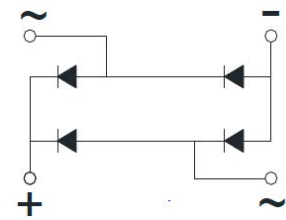
- Suitable for printed circuit board or chassis mounting
- Compact construction
- High surge current capability



KBPC8

Typical Applications

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



Schematic Diagram

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

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ Unless otherwise specified)

Parameter	Symbol	BR8005	BR801	BR802	BR804	BR806	BR808	BR810	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Average Rectified Output Current @ 60Hz Sine Wave, R-Load, $T_A=40^{\circ}\text{C}$	I_O	8							A
Surge (Non-Repetitive) Forward Current @ 60Hz Half-Sine Wave, 1 Cycle, $T_A=25^{\circ}\text{C}$	I_{FSM}	150							A
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$, $T_J=25^{\circ}\text{C}$, Rating per Diode	I^2t	93							A^2S
Thermal Resistance, Between Junction and Ambient	$R_{\theta JA}$	21							$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	-55 to +150							$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to +150							$^{\circ}\text{C}$

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

Parameter	Symbol	Test Conditions	BR8005	BR801	BR802	BR804	BR806	BR808	BR810	Unit
Maximum Instantaneous Forward Voltage Drop Per Diode	V_{FM}	$I_{FM}=4\text{A}$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage Per Diode	I_{RRM}	$V_{RM}=V_{RRM}$	10							μA

Ratings and Characteristics Curves

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

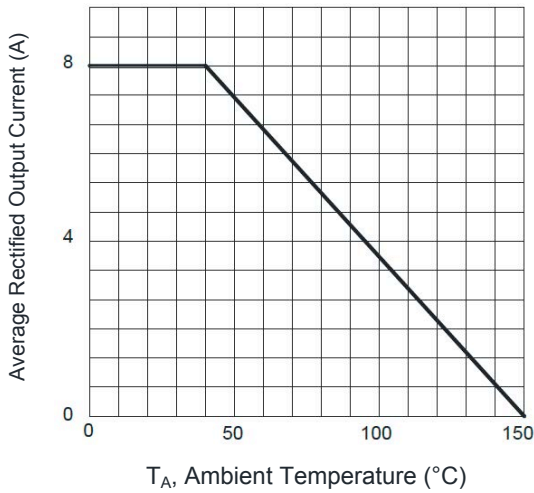


Figure 1. $I_o - T_A$ Curve

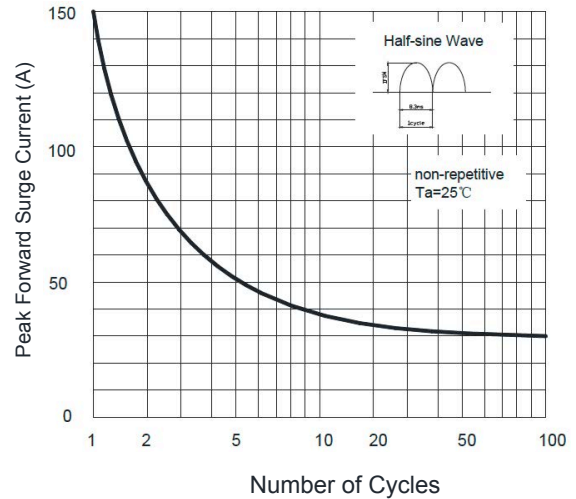


Figure 2. Surge Forward Current Capability

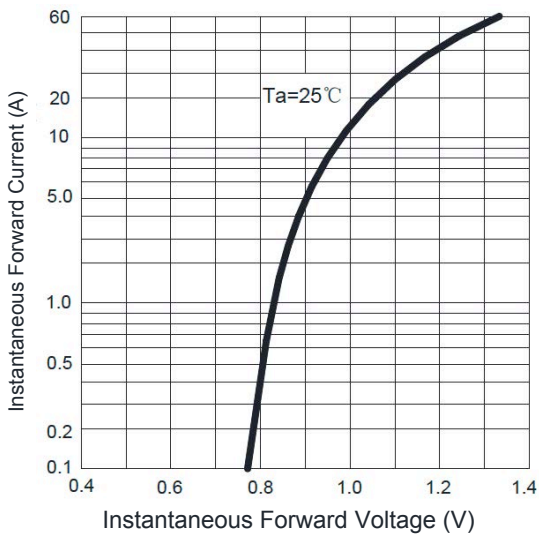


Figure 3. Instantaneous Forward Voltage

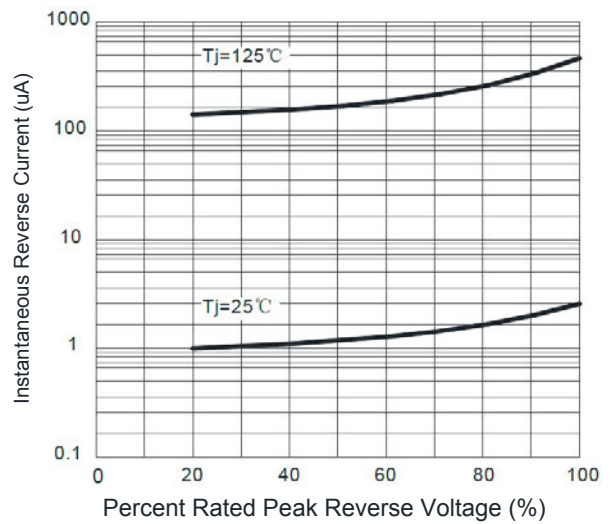
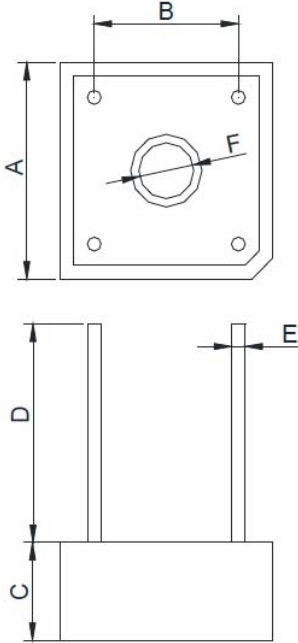


Figure 4. Typical Reverse Characteristics

Package Outline Dimensions (KBPC8)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	18.540	19.580	0.730	0.771
B	12.200	13.200	0.480	0.520
C	6.350	7.600	0.250	0.300
D	15.000	-	0.590	-
E	1.200	1.300	0.047	0.051
F	3.800	4.200	0.150	0.165