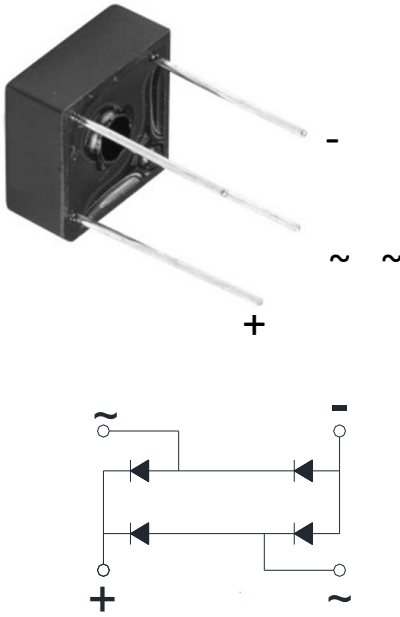


Bridge Rectifiers



Features

- UL recognition, file #E230084
- Glass passivated chip junction
- 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: KBPC1
- 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	KBPC3005	KBPC301	KBPC302	KBPC304	KBPC306	KBPC308	KBPC310
Device marking code			KBPC3005	KBPC301	KBPC302	KBPC304	KBPC306	KBPC308	KBPC310
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, $T_c=100^{\circ}\text{C}$	IO	A	3.0						
Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave, 1 cycle, $T_j=25^{\circ}\text{C}$	IFSM	A	45						
Current squared time @1ms \leq t \leq 8.3ms $T_j=25^{\circ}\text{C}$, Rating of per diode	I ² t	A ² S	8.4						
Dielectric strength @ Terminals to case, AC 1 minute	Vdis	KV	2.5						
Mounting torque @Recommend torque: 5kg·cm	Tor	kg·cm	8						
Storage temperature	Tstg	°C	-55 ~ +150						
Junction temperature	Tj	°C	-55 ~ +150						



KBPC3005 THRU KBPC310

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBPC3005	KBPC301	KBPC302	KBPC304	KBPC306	KBPC308	KBPC310
Maximum instantaneous forward voltage drop per diode	V_F	V	IFM=1.5A	1.05						
Maximum DC reverse current at rated DC blocking voltage per diode	IR	μA	$T_j=25^\circ\text{C}$	5						
			$T_j=125^\circ\text{C}$	100						
Typical junction capacitance	C_j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	11						

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

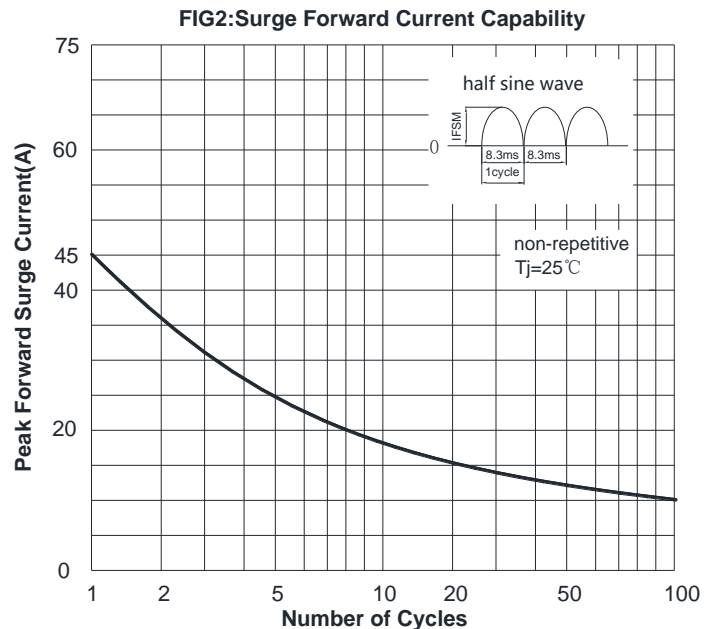
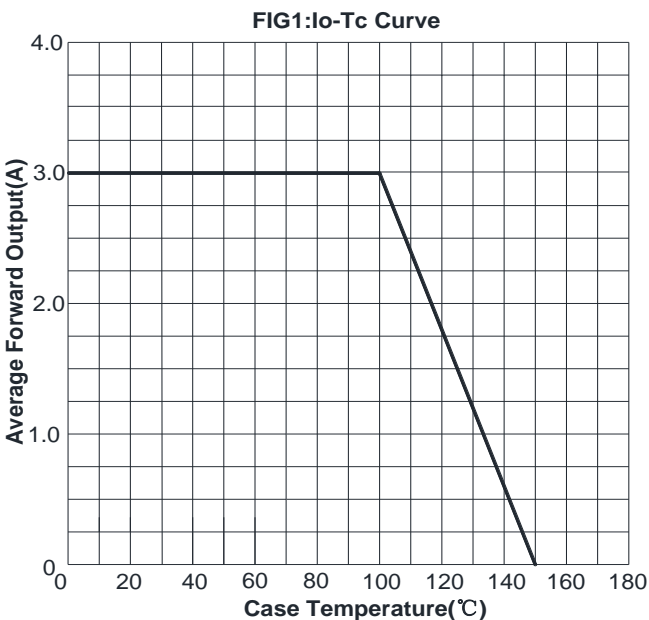
PARAMETER	SYMBOL	UNIT	KBPC3005	KBPC301	KBPC302	KBPC304	KBPC306	KBPC308	KBPC310
Thermal Resistance Between junction and case, With heatsink	$R_{\theta J-C}$	$^\circ\text{C/W}$	8						

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBPC3005 ~ KBPC310	A1	Approximate 2.5	200	200	2000	Paper Box

■ Characteristics (Typical)





KBPC3005 THRU KBPC310

FIG3: Typical Forward Voltage

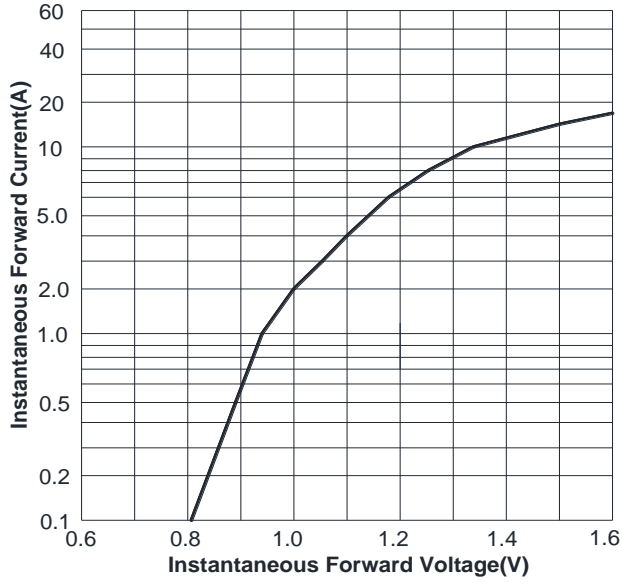
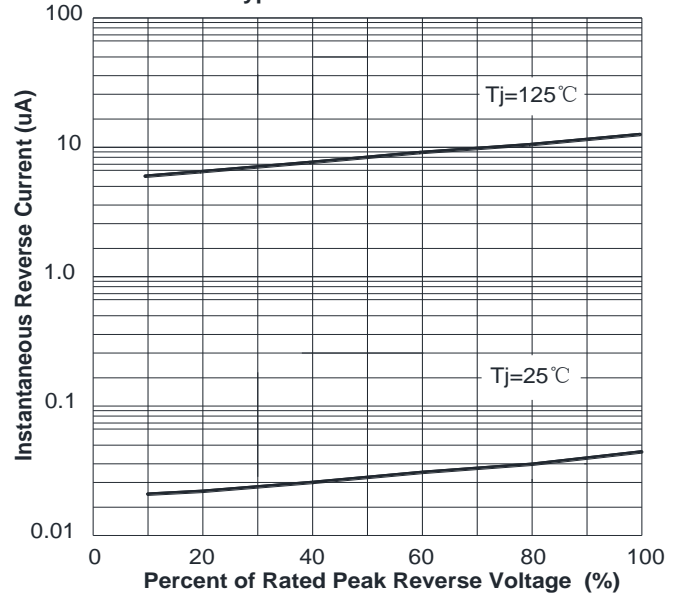
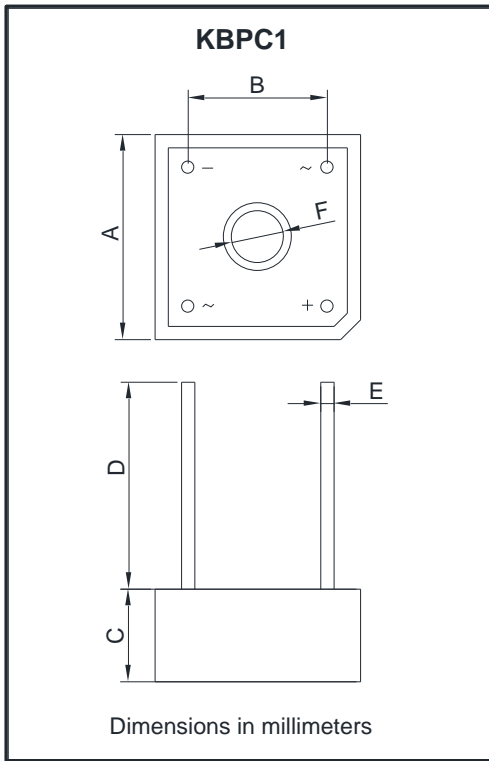


FIG4: Typical Reverse Characteristics



■ Outline Dimensions



KBPC1		
Dim	Min	Max
A	14.7	15.7
B	10.3	11.3
C	6.35	7.6
D	15.0	/
E	0.74	0.82
F	3.8	4.2



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