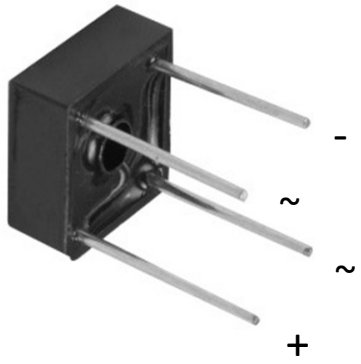
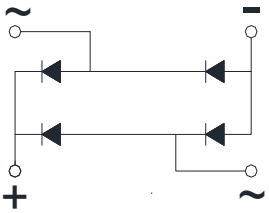
Bridge Rectifiers





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 Date

- 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℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBPC6005	KBPC601	KBPC602	KBPC604	KBPC606	KBPC608	KBPC610
Device marking code			KBPC6005	KBPC601	KBPC602	KBPC604	KBPC606	KBPC608	KBPC610
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, T_C=120℃	I_O	A	6.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	150						
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode	I^2t	A^2S	93.4						
Dielectric strength @ Terminals to case, AC 1 minute	V_{dis}	KV	2.5						
Mounting torque @Recommend torque：5kg·cm	Tor	kg·cm	8						
Storage temperature	T_{stg}	℃	-55 ~ +150						
Junction temperature	T_j	℃	-55 ~ +150						

■ Electrical Characteristics (T_a=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBPC6005	KBPC601	KBPC602	KBPC604	KBPC606	KBPC608	KBPC610
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=3.0A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j=25℃	5						
			T_j=125℃	100						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	37						

■ Thermal Characteristics (T_a=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	KBPC6005	KBPC601	KBPC602	KBPC604	KBPC606	KBPC608	KBPC610
Thermal Resistance	Between junction and case, With heatsink	$R_{\theta J-C}$	℃/W	2.5						

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

■ Ordering Information (Example)

PREFERED 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-Tc Curve

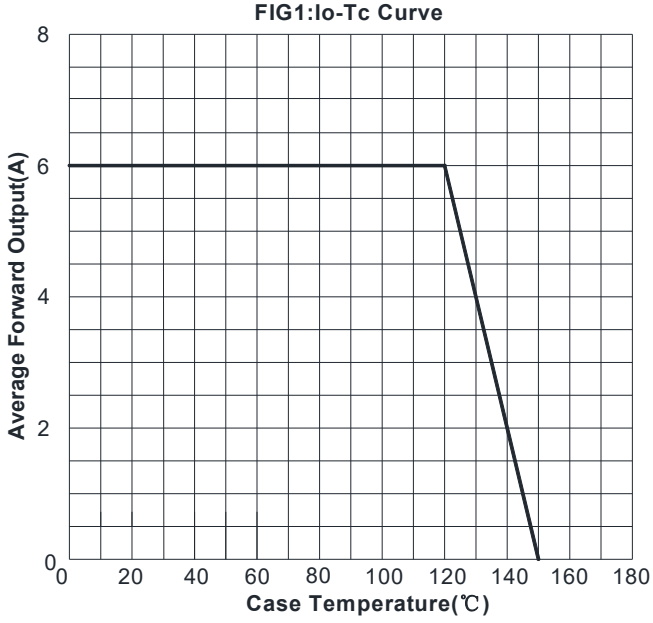
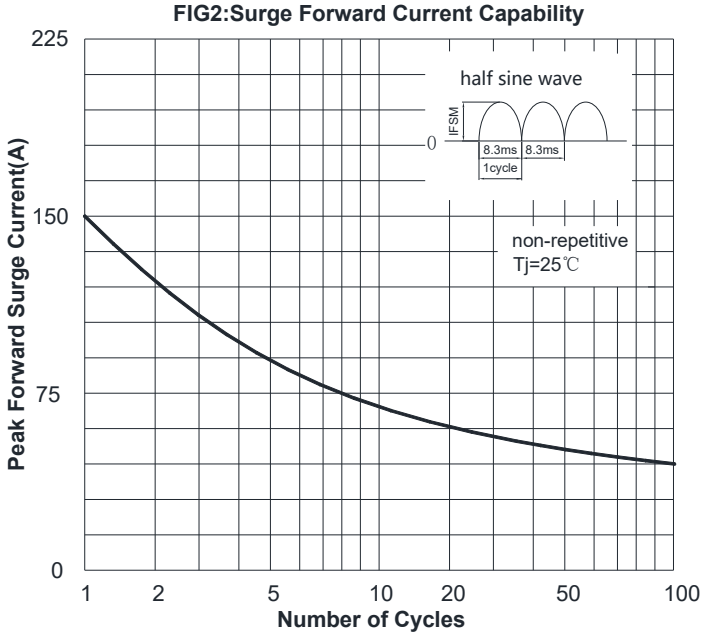
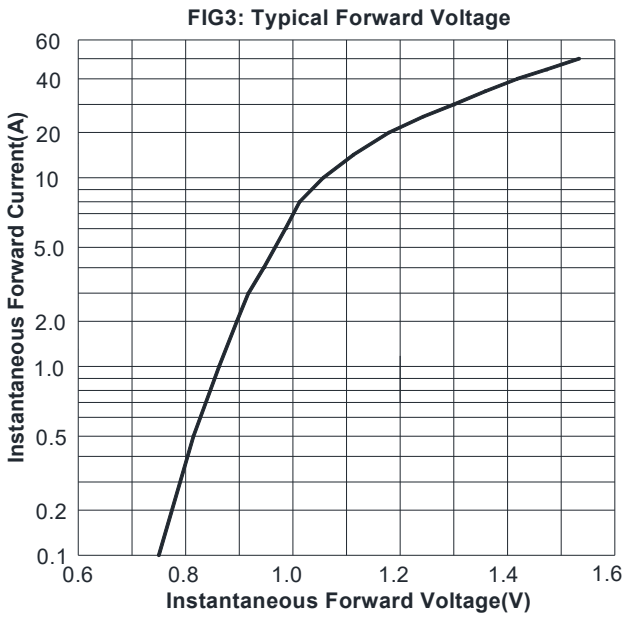
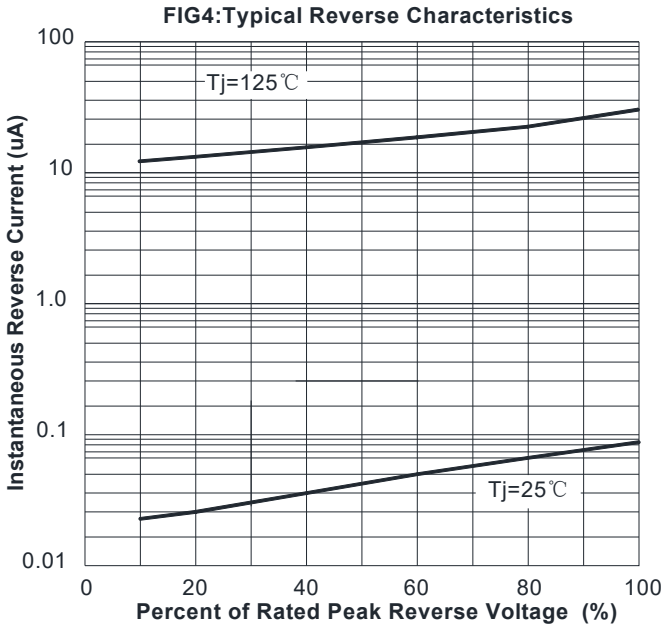


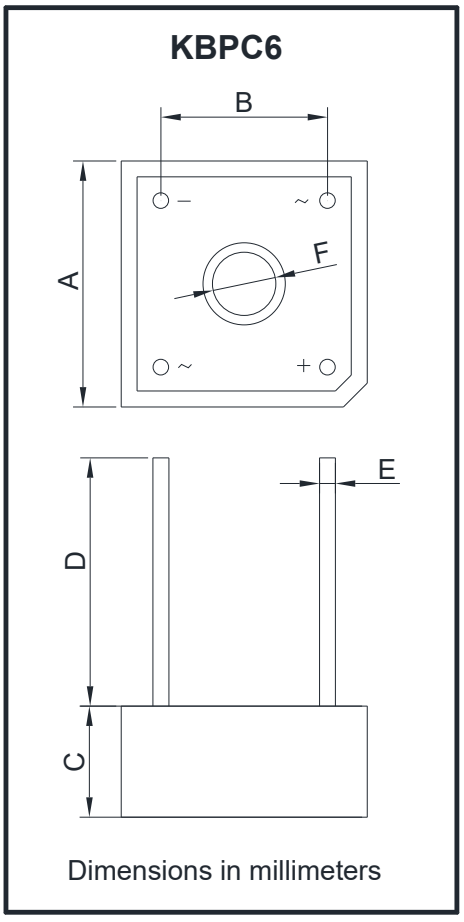
FIG2:Surge Forward Current Capability







■ 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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