WON-TOP ELECTRONICS

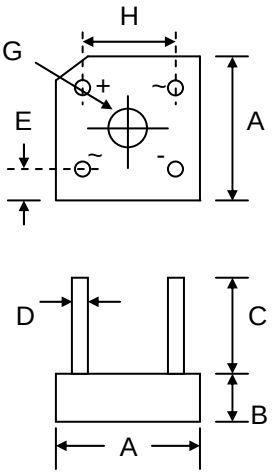
KBPC600 – KBPC610

6.0A SINGLE PHASE BRIDGE RECTIFIER

RoHS Pb

Features

- Diffused Junction
- High Current Capability
- High Case Dielectric Strength
- High Surge Current Capability
- Ideal for Printed Circuit Board Application
- Plastic Material has UL Flammability 94V-0
- Recognized File # E157705



KBPC-6		
Dim	**Min**	**Max**
A	14.70	15.75
B	5.80	6.90
C	15.00	—
D	1.00 Ø Typical	
E	1.70	2.72
G	Hole for #6 screw	
	3.60 Ø	4.00 Ø
H	10.30	11.30
All Dimensions in mm		

Mechanical Data

- Case: KBPC-6, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Marked on Body
- Weight: 3.8 grams (approx.)
- Mounting Position: Through Hole for #6 Screw
- Mounting Torque: 0.8 N.m Max.
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	KBPC 600	KBPC 601	KBPC 602	KBPC 604	KBPC 606	KBPC 608	KBPC 610	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @T_C = 50°C Average Rectified Output Current (Note 2) @T_A = 40°C	I_O	6.0 3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	150							A
Forward Voltage per leg @I_F = 3.0A	V_{FM}	1.1							V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_{RM}	5.0 500							μA
I^2t Rating for Fusing (t < 8.3ms)	I^2t	127							A^2s
Typical Junction Capacitance (Note 3)	C_J	186				90			pF
Thermal Resistance Junction to Ambient (Note 2) Thermal Resistance Junction to Case (Note 1)	$R_{\theta JA}$ $R_{\theta JC}$	22 7.3							°C/W
RMS Isolation Voltage Terminals to Case, t = 1min	V_{ISO}	1500							V
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

Note: 1. Mounted on 140 x 150 x 3.0mm thick Al. heatsink.
2. Mounted on PCB with 12 x 12mm copper pads and measured at lead length 9.5mm from case.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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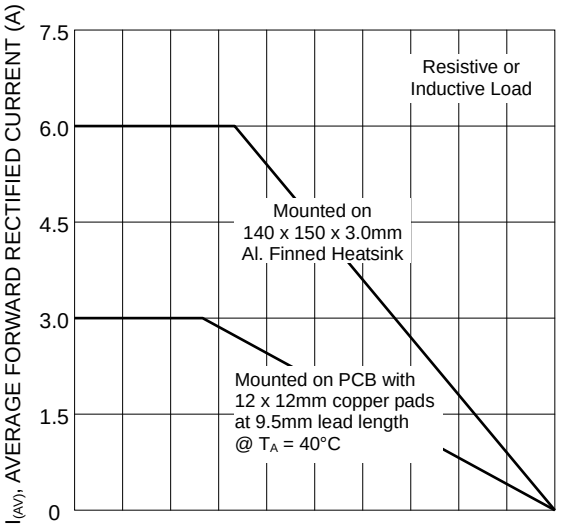


Fig. 1 Forward Current Derating Curve

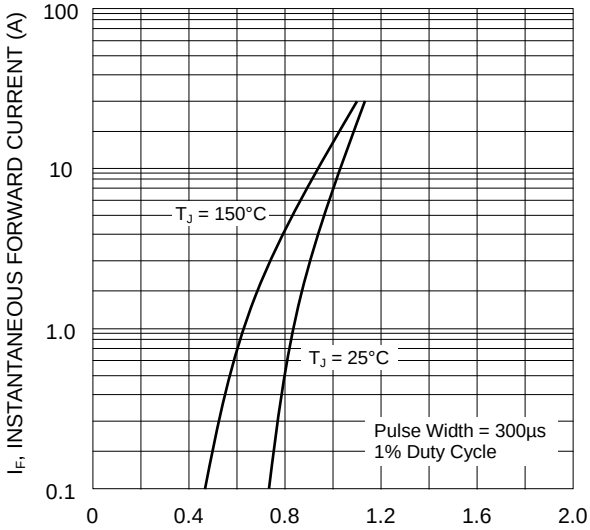


Fig. 2 Typical Forward Characteristics

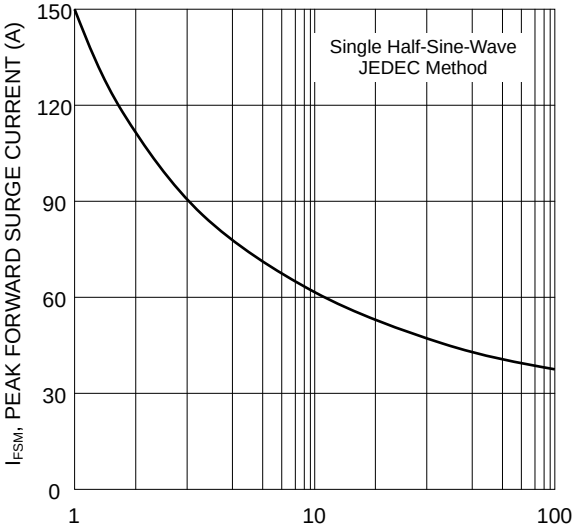


Fig. 3 Forward Surge Current Derating Curve

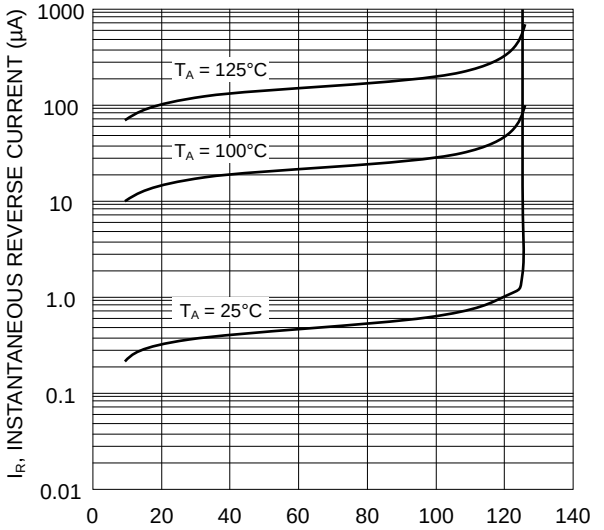


Fig. 4 Typical Reverse Characteristics

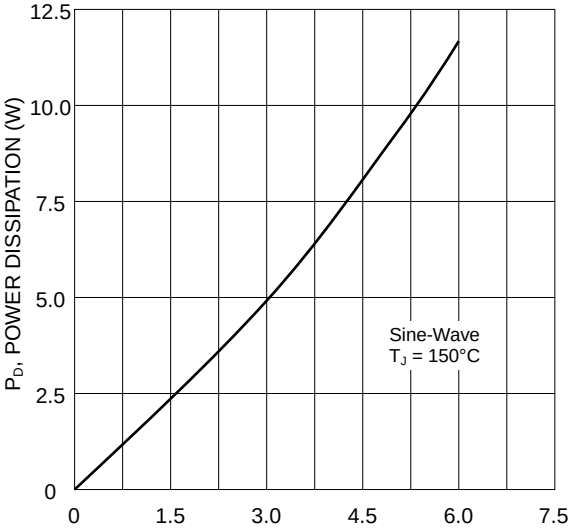


Fig. 5 Forward Power Dissipation

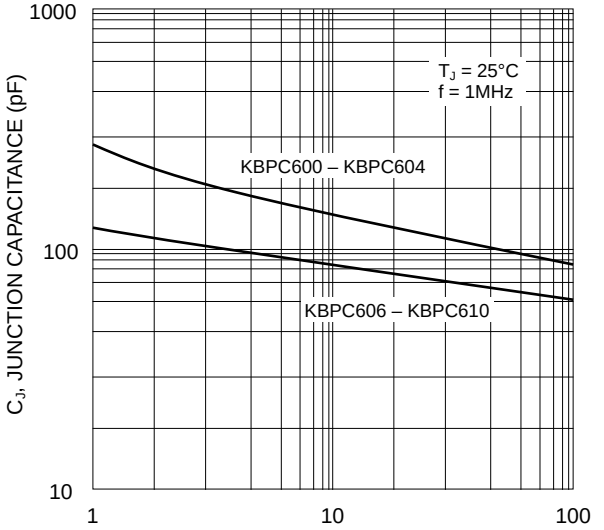
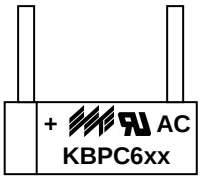


Fig. 6 Typical Junction Capacitance

MARKING INFORMATION



KBPC6xx = Device Number
xx = 00, 01, 02, 04, 06, 08 or 10
Polarity = As Marked on Body

PACKAGING INFORMATION

BULK

Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
198 x 198 x 50	200	425 x 215 x 280	2,000	8.0

Note: 1. Paper box, white or brown color.

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ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBPC600	Square Bridge	200 Units/Box
KBPC601	Square Bridge	200 Units/Box
KBPC602	Square Bridge	200 Units/Box
KBPC604	Square Bridge	200 Units/Box
KBPC606	Square Bridge	200 Units/Box
KBPC608	Square Bridge	200 Units/Box
KBPC610	Square Bridge	200 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBPC600-LF**.

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We power your everyday.