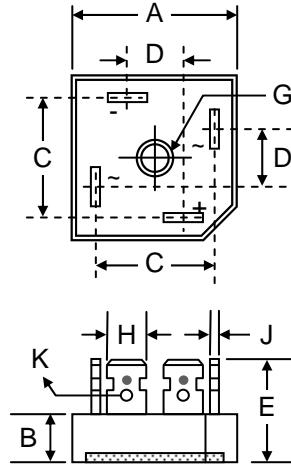


Features

- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Heatsink Integrated Epoxy Case for Maximum Heat Dissipation
- Low Thermal Resistance
- High Surge Current Capability
- Recognized File # E157705



KBPC-PS		
Dim	Min	Max
A	28.40	28.70
B	—	10.16
C	21.00	22.50
D	9.00	10.00
E	—	25.40
G	5.08Ø Nominal	
H	6.35 Typical	
J	0.71	0.91
K	2.5Ø Typical	
All Dimension in mm		

Mechanical Data

- Case: Epoxy Case with Heatsink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Faston Lugs
- Polarity: As Marked on Case
- Mounting: Through Hole with #10 Screw
- Mounting Torque: 2.0 N.m Max.
- Weight: 20 grams (approx.)
- 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	KBPC40								Unit
		00PS	01PS	02PS	04PS	06PS	08PS	10PS	12PS	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	1200	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	840	V
Average Rectified Output Current @ _{T_C} = 55°C	I _O	40								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	500								A
Forward Voltage per leg @ _{I_F} = 20A	V _{FM}	1.1								V
Peak Reverse Current @ _{T_C} = 25°C At Rated DC Blocking Voltage @ _{T_C} = 125°C	I _{RM}	10 500								µA
I ² t Rating for Fusing (t < 8.3ms)	I ² t	800								A ² s
Typical Junction Capacitance (Note 1)	C _J	300								pF
Typical Thermal Resistance (Note 2)	R _{JC}	1.4								°C/W
RMS Isolation Voltage, t = 1min	V _{ISO}	2500								V
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150								°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
 2. Thermal resistance junction to case, mounted on 394 x 114 x 114mm Al. heatsink.

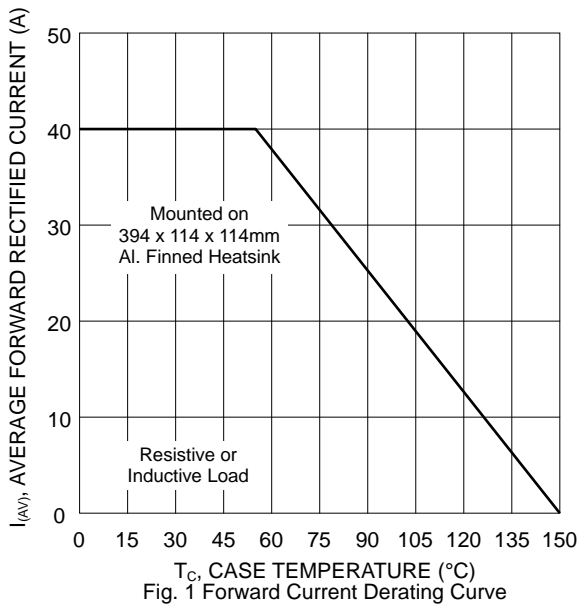


Fig. 1 Forward Current Derating Curve

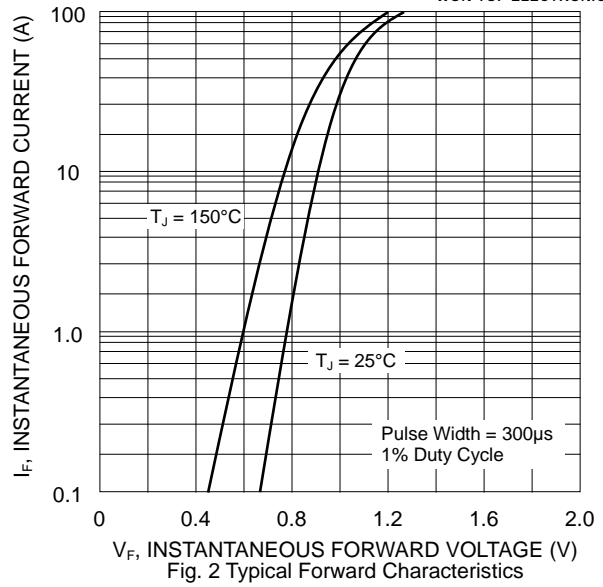


Fig. 2 Typical Forward Characteristics

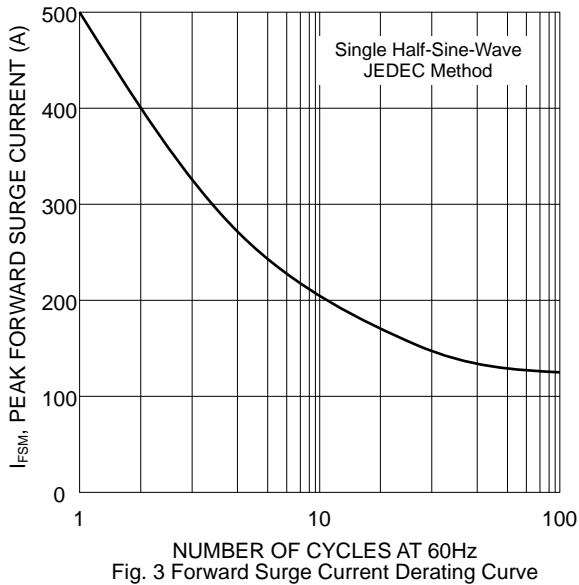


Fig. 3 Forward Surge Current Derating Curve

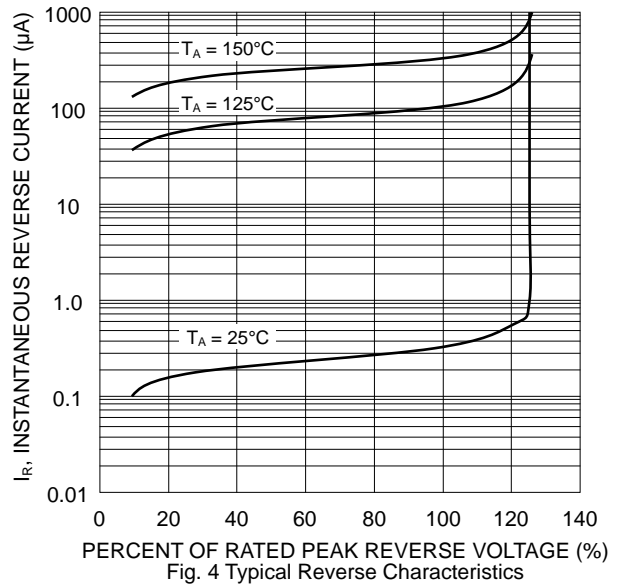


Fig. 4 Typical Reverse Characteristics

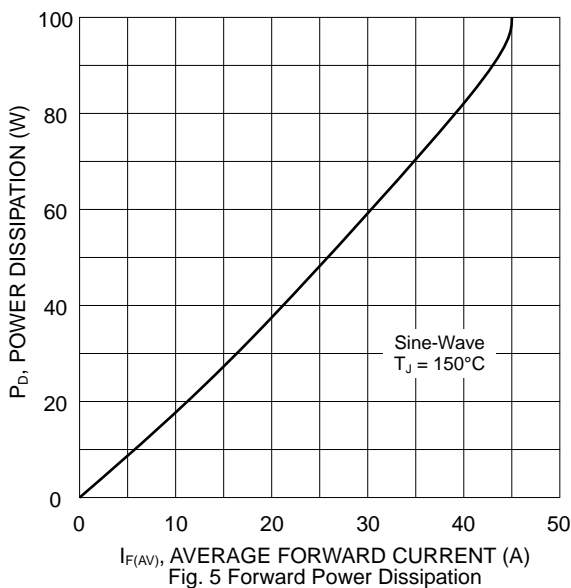


Fig. 5 Forward Power Dissipation

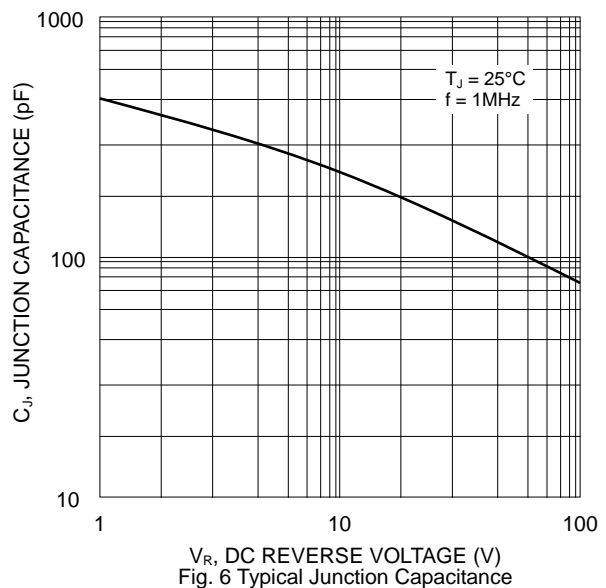
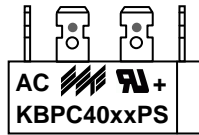


Fig. 6 Typical Junction Capacitance

MARKING INFORMATION



KBPC40xxPS = Device Number
 xx = 00, 01, 02, 04, 06, 08, 10 or 12
 Polarity = As Marked on Body

PACKAGING INFORMATION

BULK

Case Style	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)
KBPC-PS	195 x 195 x 40	50	405 x 205 x 240	500	12.0

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

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBPC40xxPS	Square Bridge	50 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, KBPC4000PS-LF.**

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