
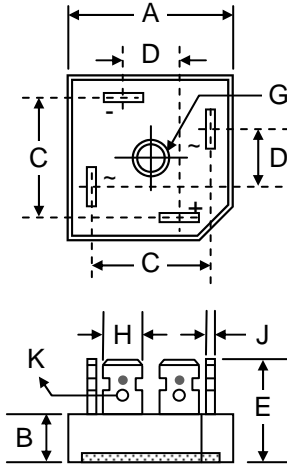


### Features

- Glass Passivated Die Construction
- 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 @ $T_A=25^\circ\text{C}$ unless otherwise specified

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

Characteristic	Symbol	GBPC50										Unit
		00PS	01PS	02PS	04PS	06PS	08PS	10PS	12PS	14PS	16PS	
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	1200	1400	1600	V
Working Peak Reverse Voltage	$V_{RWM}$											
DC Blocking Voltage	$V_R$											
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	840	980	1120	V
Average Rectified Output Current @ $T_C = 55^\circ\text{C}$	$I_O$	50										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 @ $I_F = 25\text{A}$	$V_{FM}$	1.1										V
Peak Reverse Current @ $T_C = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C = 125^\circ\text{C}$	$I_{RM}$	10 500										$\mu\text{A}$
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	800										$\text{A}^2\text{s}$
Typical Junction Capacitance (Note 1)	$C_J$	300										pF
Typical Thermal Resistance (Note 2)	$R_{JC}$	1.4										$^\circ\text{C/W}$
RMS Isolation Voltage, $t = 1\text{min}$	$V_{ISO}$	2500										V
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150										$^\circ\text{C}$

- 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.

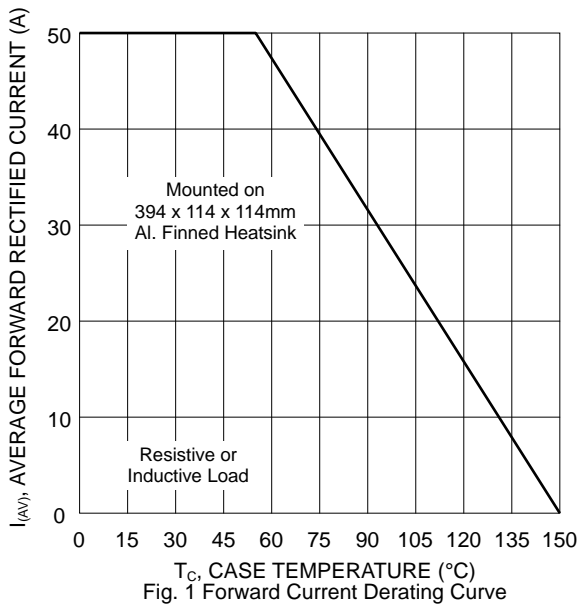


Fig. 1 Forward Current Derating Curve

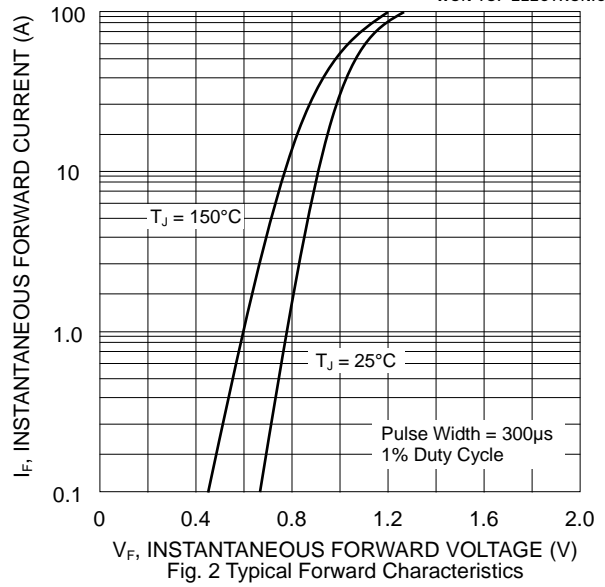


Fig. 2 Typical Forward Characteristics

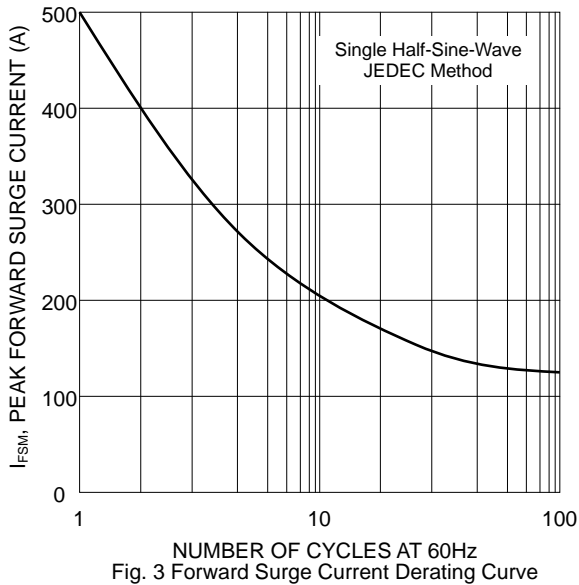


Fig. 3 Forward Surge Current Derating Curve

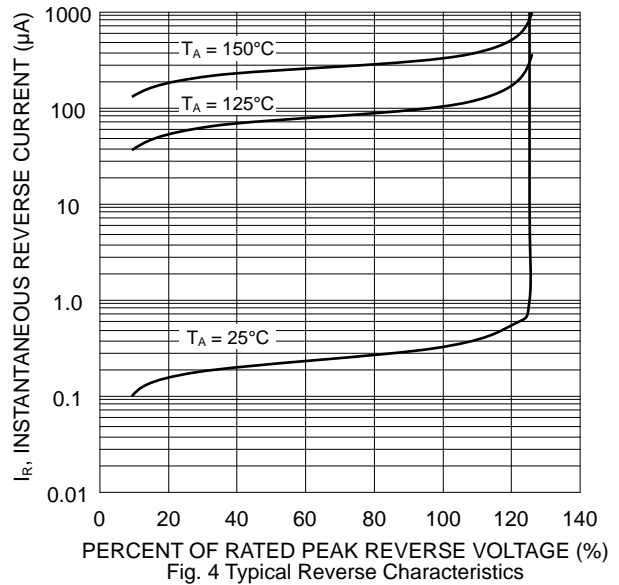


Fig. 4 Typical Reverse Characteristics

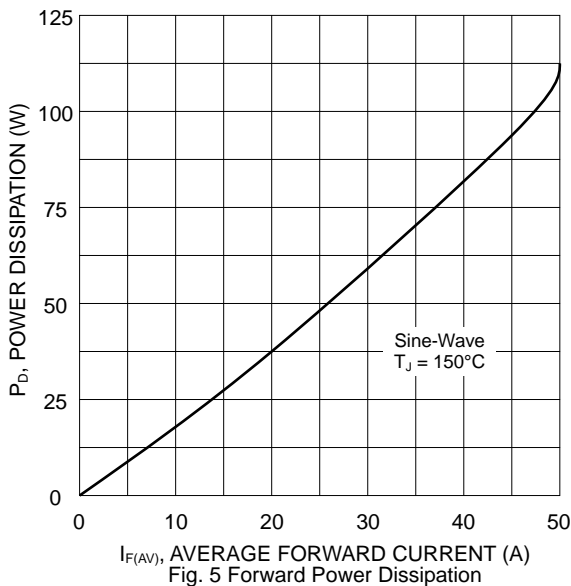


Fig. 5 Forward Power Dissipation

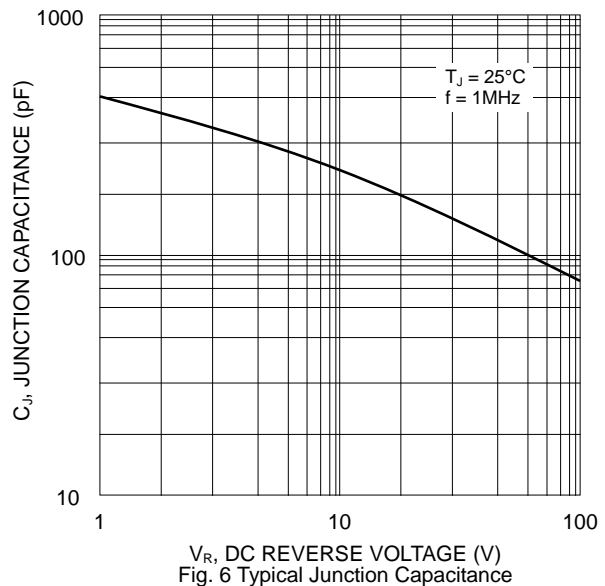
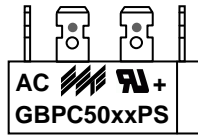


Fig. 6 Typical Junction Capacitance

## MARKING INFORMATION



GBPC50xxPS = Device Number  
 xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16  
 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)
<b>KBPC-PS</b>	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
GBPC50xxPS	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, GBPC5000PS-LF.**

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