


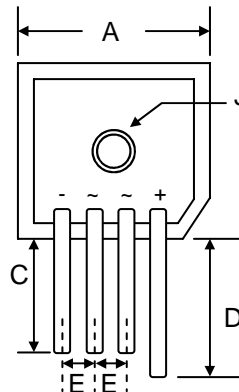
50A GLASS PASSIVATED HIGH CURRENT SINGLE-PHASE BRIDGE RECTIFIER

Features

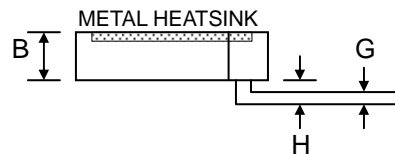
- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Designed for Saving Mounting Space
-  Recognized File # E157705

Mechanical Data

- Case: KBPC-S, Molded Plastic with Heatsink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Mounting: Through Hole with #10 Screw
- Mounting Torque: 23 cm·kg (20 in·lbs) Max.
- Weight: 21 grams (approx.)
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



KBPC-S		
Dim	Min	Max
A	28.40	28.70
B	10.97	11.23
C	—	21.00
D	—	25.00
E	5.10	—
G	1.20 Ø Typical	
H	3.05	3.60
J	5.08 Ø Nominal	
All Dimensions in mm		



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	GBPC50										Unit	
		00S	01S	02S	04S	06S	08S	10S	12S	14S	16S		
Peak Repetitive Reverse Voltage	V _{RRM}												V
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	800	1000	1200	1400	1600		
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 = 50°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}	450										A	
Forward Voltage per leg @I _F = 25A	V _{FM}	1.1										V	
Peak Reverse Current @T _C = 25°C At Rated DC Blocking Voltage @T _C = 125°C	I _{RM}	5.0 500										μA	
I ² t Rating for Fusing (t < 8.3ms)	I ² t	800										A ² s	
Typical Junction Capacitance (Note 1)	C _j	400										pF	
Typical Thermal Resistance per leg (Note 2)	R _{θJC}	1.0										°C/W	
RMS Isolation Voltage from Case to Leads	V _{ISO}	2500										V	
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150										°C	

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Mounted on 229 x 152 x 127mm Al. finned plate.

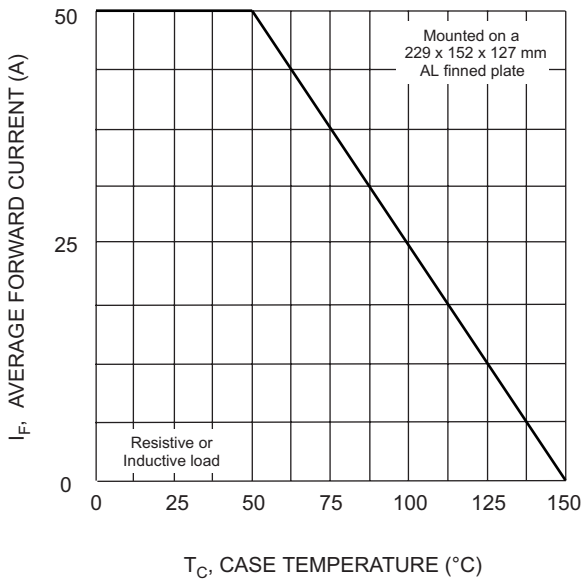


Fig. 1 Forward Current Derating Curve

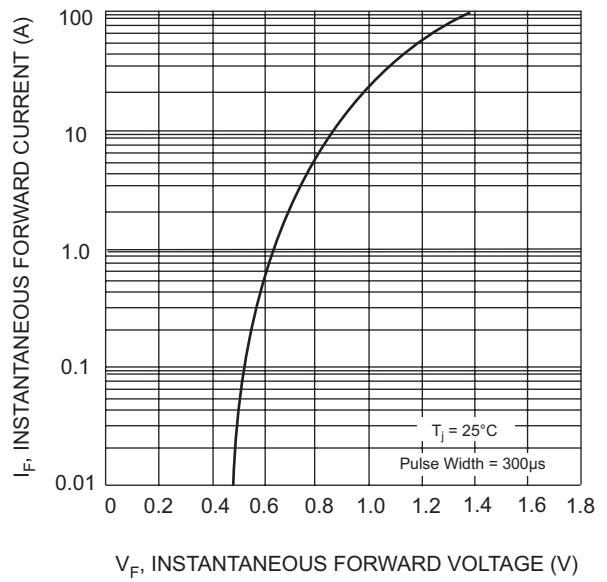


Fig. 2 Typical Forward Characteristics (per element)

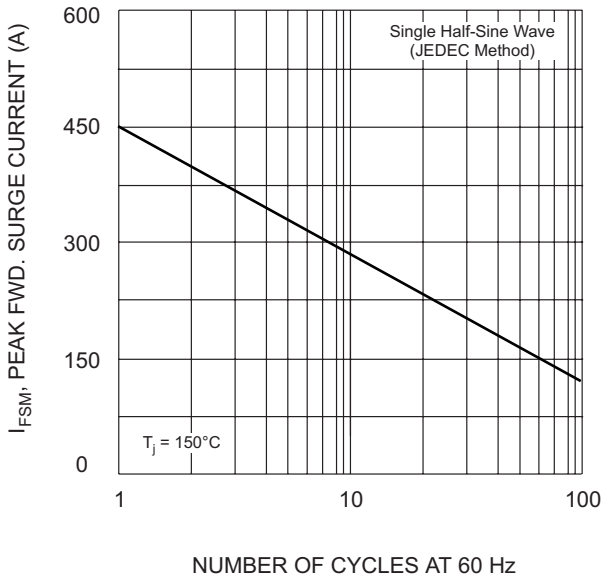


Fig. 3 Max Non-Repetitive Surge Current

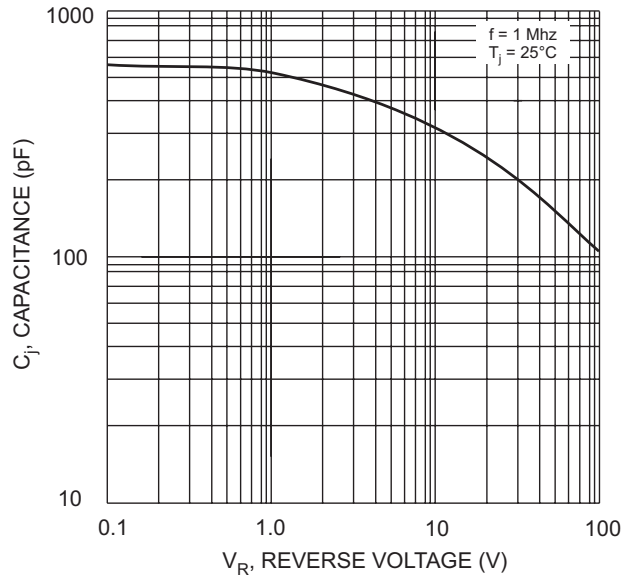


Fig. 4 Typical Junction Capacitance (per element)

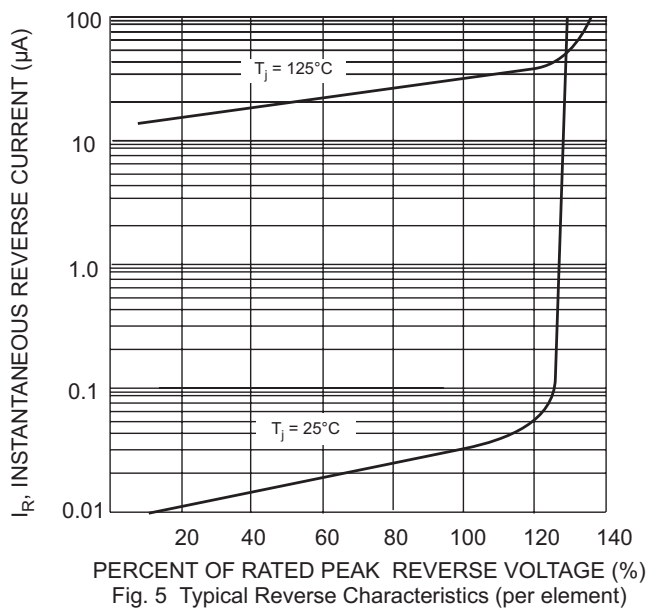


Fig. 5 Typical Reverse Characteristics (per element)

MARKING INFORMATION



WTE = Manufacturer's Logo
GBPC50xxS = Device Number
xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16
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)
195 x 195 x 40	80	405 x 205 x 240	800	17.0

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

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
GBPC5000S	SIL Bridge	80 Units/Box
GBPC5001S	SIL Bridge	80 Units/Box
GBPC5002S	SIL Bridge	80 Units/Box
GBPC5004S	SIL Bridge	80 Units/Box
GBPC5006S	SIL Bridge	80 Units/Box
GBPC5008S	SIL Bridge	80 Units/Box
GBPC5010S	SIL Bridge	80 Units/Box
GBPC5012S	SIL Bridge	80 Units/Box
GBPC5014S	SIL Bridge	80 Units/Box
GBPC5016S	SIL Bridge	80 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, GBPC5000S-LF.**

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