

# **KBPC40, 50GS SERIES**

## 40, 50A GLASS PASSIVATED IN-LINE BRIDGE RECTIFIER

#### **Features**

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- Designed for Saving Mounting Space

### **Mechanical Data**

 Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation

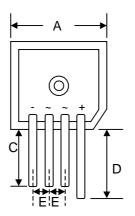
 Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Polarity: As Marked on Body

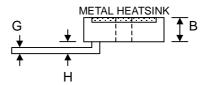
Weight: 30 grams (approx.)

Mounting Position: Any

Marking: Type Number



KBPC-S					
Dim	Min	Max			
Α	28.40	28.70			
В	10.97	11.23			
С	13.90	_			
D	19.10	_			
E	5.10	_			
G	1.20 Ø Typical				
Н	3.05	3.60			
All Dimensions in mm					

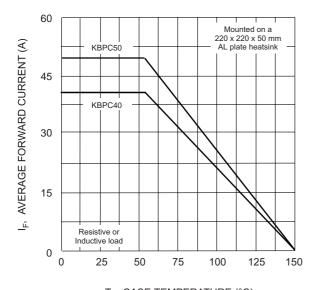


### Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

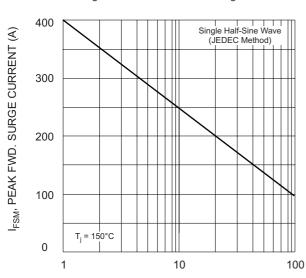
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristics	Symbol	-00GS	-01GS	-02GS	-04GS	-06GS	-08GS	-10GS	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current KBPC40 @T <sub>C</sub> = 55°C KBPC50	lo				40 50				Α
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half-sine-wave Superimposed on Rated Load (JEDEC Method)  KBPC40 KBPC50		400 400						А	
Forward Voltage Drop KBPC40 $@I_F = 20A$ (per element) KBPC50 $@I_F = 25A$		1.1						V	
Peak Reverse Current at $@T_C = 25^{\circ}C$ Rated DC Blocking Voltage (per element) $@T_C = 125^{\circ}C$		5.0 500						μΑ	
Typical Thermal Resistance (per element) (Note 1)	RθJC	1.5					K/W		
RMS Isolation Voltage from Case to Lead		2500						V	
Operating and Storage Temperature Range		-65 to +150						°C	

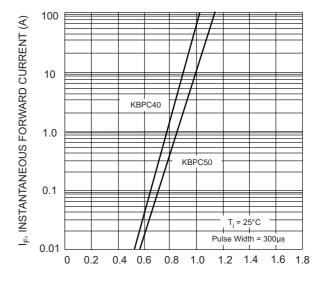
Note: 1. Thermal resistance junction to case per element mounted on 220 x 220 x 50mm thick AL plate.



 $T_{\rm C}$ , CASE TEMPERATURE (°C) Fig. 1 Forward. Current Derating Curve



NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Surge Current



V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics (per element)

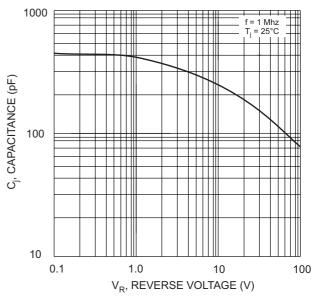
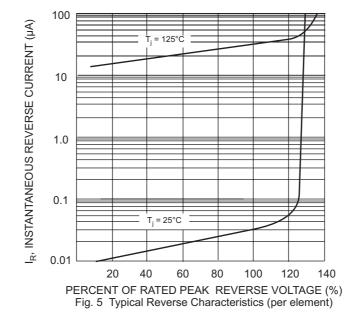


Fig. 4 Typical Junction Capacitance (per element)



#### **ORDERING INFORMATION**

Product No.	Package Type	Shipping Quantity
KBPCxx00GS	SIL Bridge	72 Units/Box
KBPCxx01GS	SIL Bridge	72 Units/Box
KBPCxx02GS	SIL Bridge	72 Units/Box
KBPCxx04GS	SIL Bridge	72 Units/Box
KBPCxx06GS	SIL Bridge	72 Units/Box
KBPCxx08GS	SIL Bridge	72 Units/Box
KBPCxx10GS	SIL Bridge	72 Units/Box

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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