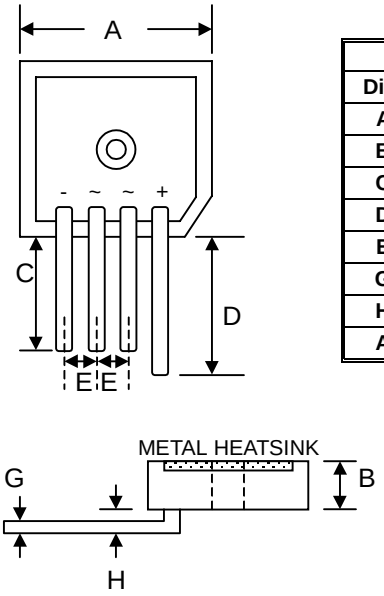
KBPC40, 50GS SERIES

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



KBPC-S		
Dim	**Min**	**Max**
A	28.40	28.70
B	10.97	11.23
C	13.90	—
D	19.10	—
E	5.10	—
G	1.20 Ø Typical	
H	3.05	3.60
All Dimensions in mm		

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

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%.

Characteristics	Symbol	-00GS	-01GS	-02GS	-04GS	-06GS	-08GS	-10GS	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 KBPC40 @T_C = 55°C KBPC50	I_O	40 50							A
Non-Repetitive Peak Forward Surge Current, KBPC40 8.3ms Single Half-sine-wave Superimposed KBPC50 on Rated Load (JEDEC Method)	I_{FSM}	400 400							A
Forward Voltage Drop KBPC40 @I_F = 20A (per element) KBPC50 @I_F = 25A	V_{FM}	1.1							V
Peak Reverse Current at @T_C = 25°C Rated DC Blocking Voltage (per element) @T_C = 125°C	I_R	5.0 500							µA
Typical Thermal Resistance (per element) (Note 1)	$R_{\theta JC}$	1.5							K/W
RMS Isolation Voltage from Case to Lead	V_{ISO}	2500							V
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							°C

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

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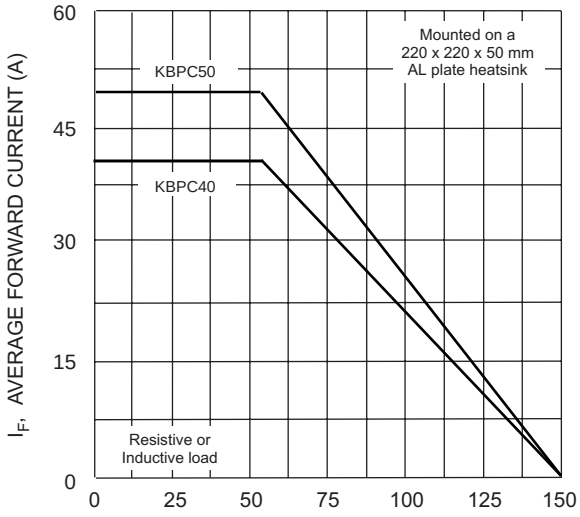


Fig. 1 Forward. Current Derating Curve

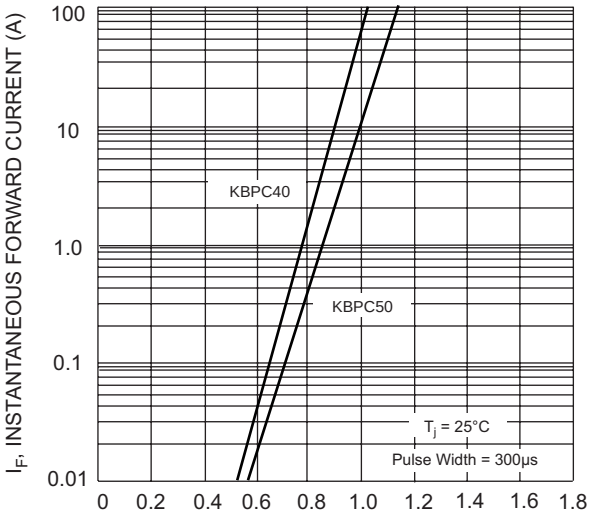


Fig. 2 Typical Forward Characteristics (per element)

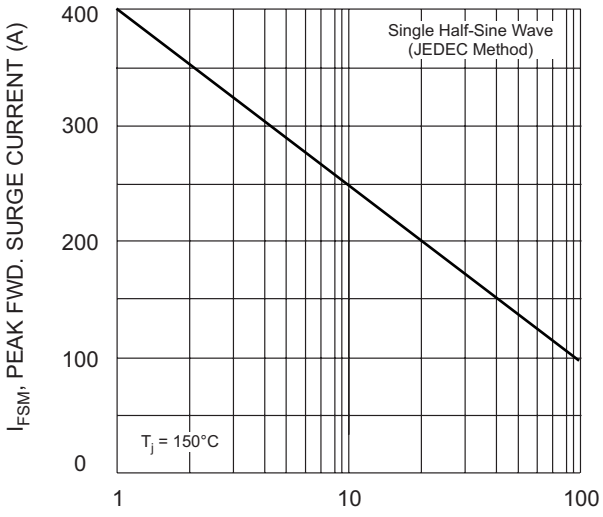


Fig. 3 Max Non-Repetitive Surge Current

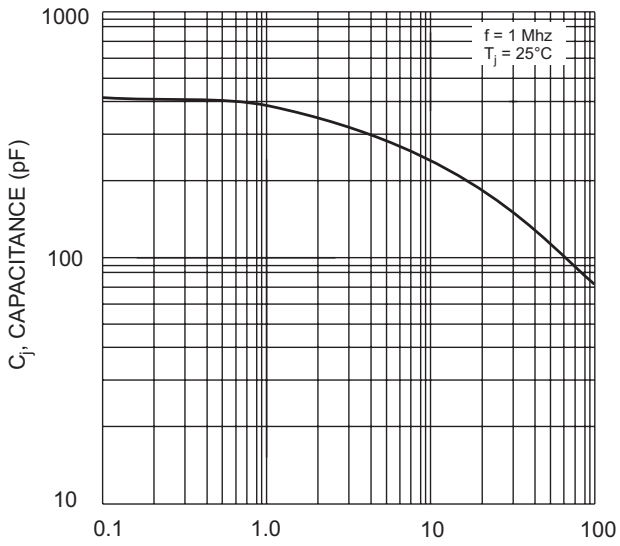


Fig. 4 Typical Junction Capacitance (per element)

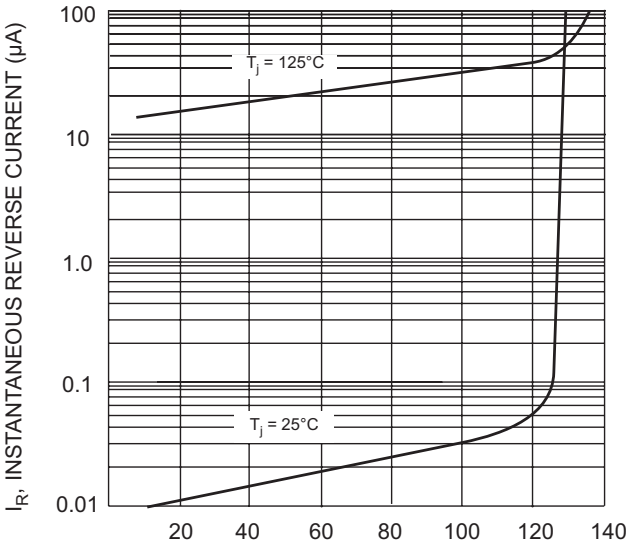


Fig. 5 Typical Reverse Characteristics (per element)

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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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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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