

# **KBPC15, 25, 35S SERIES**

# 15, 25, 35A IN-LINE BRIDGE RECTIFIER

#### **Features**

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- Designed for Saving Mounting Space
- UL Recognized File # E157705

### **Mechanical Data**

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

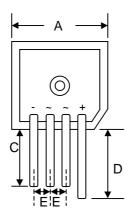
 Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Polarity: As Marked on Body

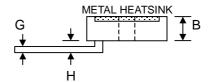
Weight: 30 grams (approx.)

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					



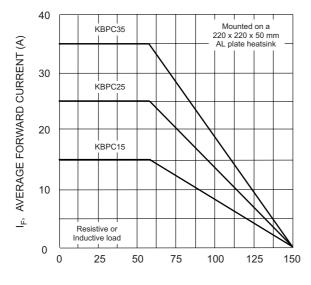
## Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

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

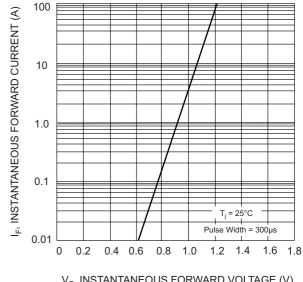
Characteristics		-00S	-01S	-02S	-04S	-06S	-08S	-10S	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		50	100	200	400	600	800	1000	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current KBPC15 $@T_C = 60$ °C KBPC35	lo				15 25 35				Α
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half-sine-wave Superimposed KBPC25 on Rated Load (JEDEC Method) KBPC35		300 300 400						Α	
Forward Voltage Drop (per element) $ \begin{array}{c} \text{KBPC15 @I}_{\text{F}} = 7.5 \text{A} \\ \text{KBPC25 @I}_{\text{F}} = 12.5 \text{A} \\ \text{KBPC35 @I}_{\text{F}} = 17.5 \text{A} \\ \end{array} $	VFM	1.2						V	
Peak Reverse Current at $@T_A = 25^{\circ}C$ Rated DC Blocking Voltage (per element) $@T_A = 100^{\circ}C$	lr	10 1.0						μA mA	
KBPC15 I <sup>2</sup> t Rating for Fusing (t < 8.3ms) (Note 1) KBPC25 KBPC35	l <sup>2</sup> t	374 374 664						A <sup>2</sup> s	
Typical Thermal Resistance (per element) (Note 2)	R <sub>θ</sub> JC	2.0						K/W	
RMS Isolation Voltage from Case to Lead		2500						V	
Operating and Storage Temperature Range	Тj, Тsтg	-55 to +150						°C	

Note: 1. Non-repetitive for t > 1ms and < 8.3ms.

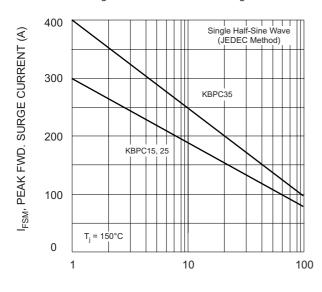
2. Thermal resistance junction to case per element mounted on 8" x 8" x 25" thick AL plate.



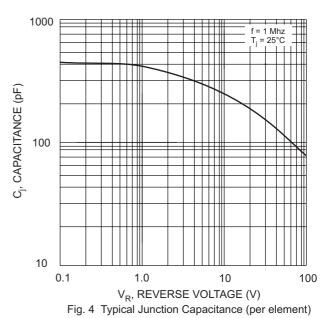
 $T_{\rm C}$ , CASE TEMPERATURE (°C) Fig. 1 Forward. Current Derating Curve

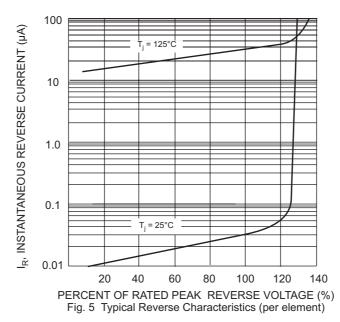


V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics (per element)



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





#### **ORDERING INFORMATION**

Product No.	Package Type	Shipping Quantity
KBPCxx00S	SIL Bridge	72 Units/Box
KBPCxx01S	SIL Bridge	72 Units/Box
KBPCxx02S	SIL Bridge	72 Units/Box
KBPCxx04S	SIL Bridge	72 Units/Box
KBPCxx06S	SIL Bridge	72 Units/Box
KBPCxx08S	SIL Bridge	72 Units/Box
KBPCxx10S	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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