

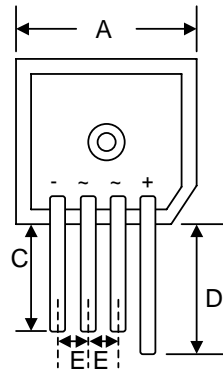
**Data sheet 1300, Rev. B**

**Features**

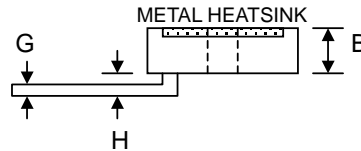
- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- Designed for Saving Mounting Space
- UL Recognized File # E223064

**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	Min	Max
A	28.40	28.70	1.12	1.13
B	10.97	11.23	0.432	0.442
C	13.90	—	0.547	—
D	19.10	—	0.752	—
E	4.90	5.20	0.193	0.205
G	1.20 Ø Typical		0.047 Ø Typical	
H	3.05	3.60	0.120	0.142
			<b>In mm</b>	<b>In inch</b>



**Maximum Ratings and Electrical Characteristics** @T<sub>A</sub>=25°C unless otherwise specified

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

Characteristics	Symbol	-00S	-01S	-02S	-04S	-06S	-08S	-10S	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								V
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V <sub>R</sub>								V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>C</sub> = 60°C	I <sub>O</sub>	KBPC15: 15 KBPC25: 25 KBPC35: 35							A
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half-sine-wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	KBPC15: 300 KBPC25: 300 KBPC35: 400							A
Forward Voltage Drop (per element)	V <sub>FM</sub>	KBPC15 @I <sub>F</sub> = 7.5A KBPC25 @I <sub>F</sub> = 12.5A KBPC35 @I <sub>F</sub> = 17.5A							V
Peak Reverse Current at Rated DC Blocking Voltage (per element)	I <sub>R</sub>	@T <sub>A</sub> = 25°C: 10 @T <sub>A</sub> = 100°C: 1.0							µA mA
I <sup>2</sup> t Rating for Fusing (t < 8.3ms) (Note 1)	I <sup>2</sup> <sub>t</sub>	KBPC15: 374 KBPC25: 374 KBPC35: 664							A <sup>2</sup> s
Typical Thermal Resistance (per element) (Note 2)	R <sub>θJC</sub>	2.0							K/W
RMS Isolation Voltage from Case to Lead	V <sub>ISO</sub>	2500							V
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

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

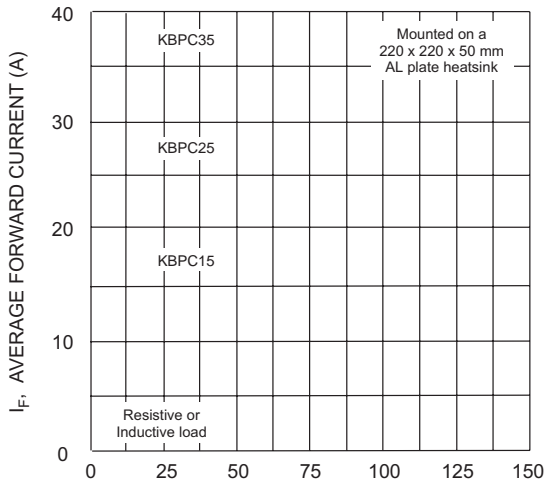
2. Thermal resistance junction to case per element mounted on 8" x 8" x 25" thick AL plate.

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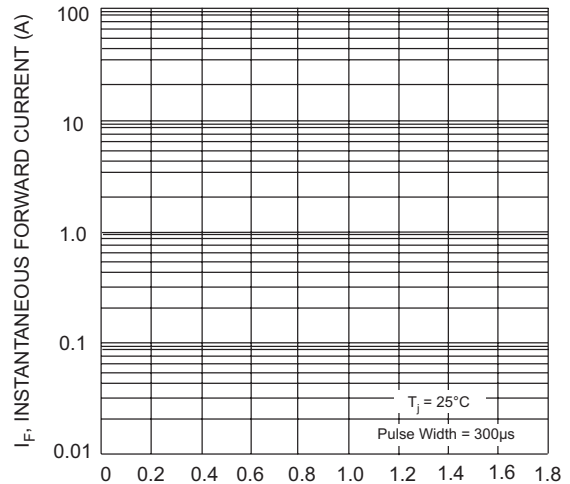
# SENSITRON SEMICONDUCTOR

Data sheet 1300, Rev.B

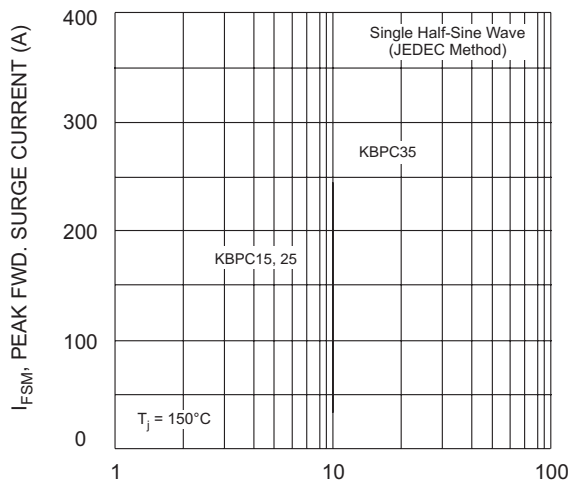
# KBPC15, 25, 35S SERIES 15, 25, 35A IN-LINE BRIDGE RECTIFIER



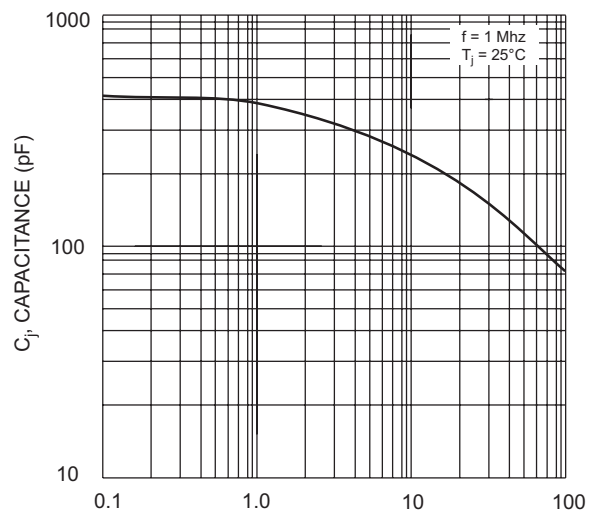
$T_C$ , CASE TEMPERATURE ( $^{\circ}C$ )  
Fig. 1 Forward Current Derating Curve



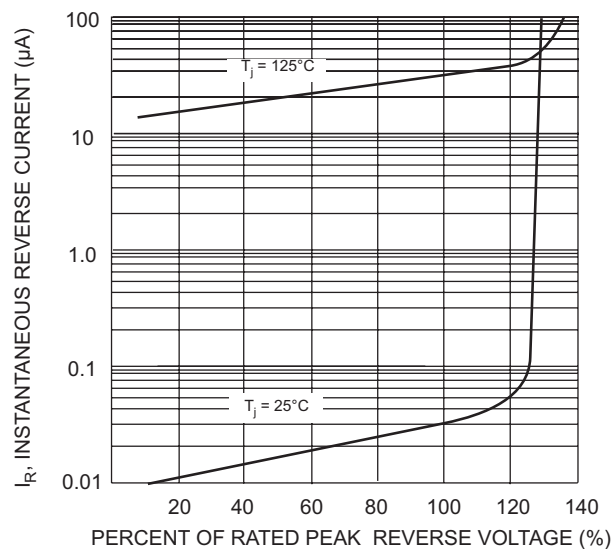
$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics (per element)



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



$V_R$ , REVERSE VOLTAGE (V)  
Fig. 4 Typical Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)  
Fig. 5 Typical Reverse Characteristics (per element)

**TECHNICAL DATA**

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