# **SEMICONDUCTOR**

15, 25, 35A GLASS PASSIVATED IN-LINE BRIDGE RECTIFIER

## Data Sheet 1433, Rev.B

Green Products

#### **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
- UL Recognized File # E223064
- Green Products in Compliance with the RoHS Directive

# **Mechanical Data**

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

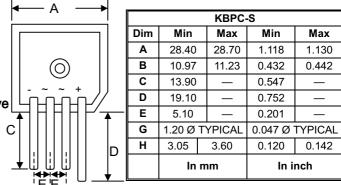
 Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

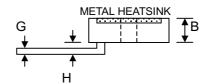
Polarity: As Marked on Body

Weight: 30 grams (approx.)

Mounting Position: Any

Marking: Type Number





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

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

Characteristics	Symbol	-00S-G	-01S-G	-02S-G	-04S-G	-06S-G	-08S-G	-10S-G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	200	400	600	800	1000	٧
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	٧
Average Rectified Output Current GBPC2  @T <sub>C</sub> = 55°C GBPC3	5 lo	15 25 35							Α
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half-sine-wave Superimposed GBPC2 on Rated Load (JEDEC Method) GBPC3	25 IFSM	300 300 400							Α
Forward Voltage Drop GBPC15 @I <sub>F</sub> = 7.5A GBPC25 @I <sub>F</sub> = 12.5 GBPC35 @I <sub>F</sub> = 17.5	A VFM	1.1						V	
Peak Reverse Current at $@T_C = 25^\circ$ Rated DC Blocking Voltage (per element) $@T_C = 125^\circ$	l lo	5.0 500							μΑ
GBPC <sup>2</sup> I <sup>2</sup> t Rating for Fusing (t < 8.3ms) (Note 1) GBPC <sup>2</sup> GBPC <sup>2</sup> GBPC <sup>2</sup>	25 I <sup>2</sup> t	374 374 664							A <sup>2</sup> s
Typical Thermal Resistance (per element) (Note 2)	RθJC				2.0				K/W
RMS Isolation Voltage from Case to Lead	Viso		2500						V
Operating and Storage Temperature Range	Тj, Tsтg		-65 to +150						°C

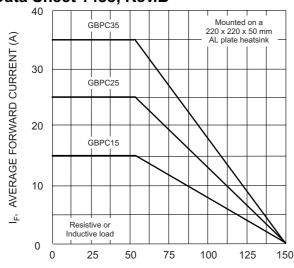
Note: 1. Non-repetitive for t > 1ms and < 8.3ms.

- 2. Thermal resistance junction to case per element mounted on 220 x 220 x 50mm thick AL plate.
- 221 West Industry Court ☐ Deer Park, NY 11729-4681 ☐ (631) 586-7600 FAX (631) 242-9798 World Wide Web Site http://www.sensitron.com E-Mail Address sales@sensitron.com •

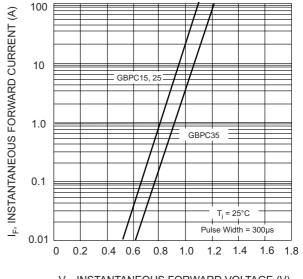
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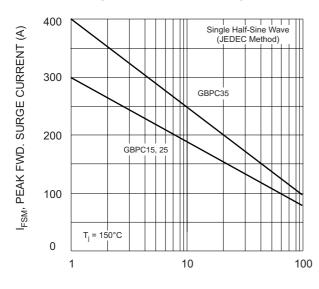




T<sub>C</sub>, CASE TEMPERATURE (°C) Fig. 1 Forward. Current Derating Curve



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

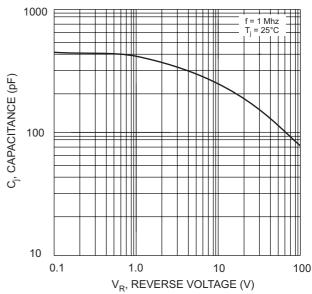
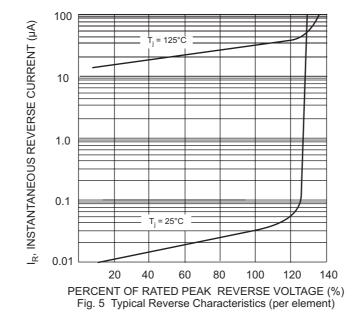


Fig. 4 Typical Junction Capacitance (per element)



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# **GBPC15, 25, 35S-G SERIES**

15, 25, 35A GLASS PASSIVATED IN-LINE BRIDGE RECTIFIER

### Data Sheet 1433, Rev.B

**Green Products** 

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