



DATA SHEET

SEMICONDUCTOR

GBP200 THRU GBP2010

IN-LINE GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER



VOLTAGE - 50 to 1000 Volts CURRENT - 2.0 Amperes

GBP

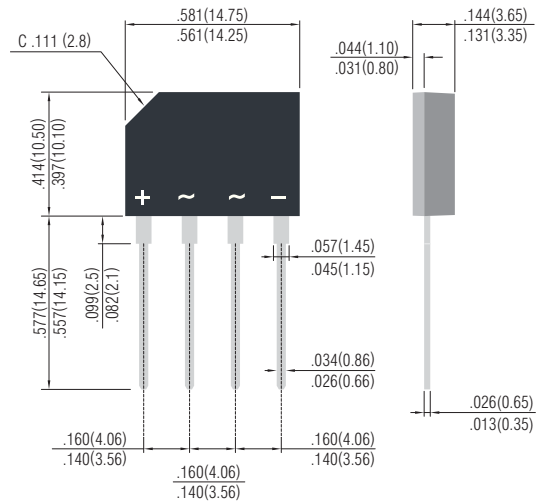
Unit: inch (mm)

FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating : 60 Amperes peak

MECHANICAL DATA

Terminals: Leads solderable per MIL-STD-202, Method 208
 Mounting position: Any
 Weight: 0.06 ounce, 1.7 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.
 For Capacitive load derate current by 20%.

	GBP200	GBP201	GBP202	GBP204	GBP206	GBP208	GBP2010	UNIT
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Input Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Rectified Output Current at 50°C Ambient.	2.0							A
Peak One Cycle Surge Overload Current	60.0							A
Maximum Instantaneous Forward Voltage Drop per Bridge element at 1.5A dc	1.0							V
Maximum (Total Bridge) Reverse Leakage at rated T _A =25° C Dc Blocking Voltage per element T _A =100°C	5.0 500							μA
I ² t Rating for fusing (t<8.35ms)	20.0							A ² S
Typical junction capacitance per leg (Note 1)	25.0							pF
Typical Thermal Resistance per leg (Note 2) R _{θJA} R _{θJL}	32.0 13.0							°C / W
Operating Temperature Range, T _J	-55 to +125							°C
Storage Temperature Range, T _{STG}	-55 to +150							°C

NOTES:

1. Measured at 1.0MHZ and applied reverse voltage of 4.0 volts
2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B with 0.47 x 0.47"(12 x 12mm)copper pads.

DEVICE CHARACTERISTICS

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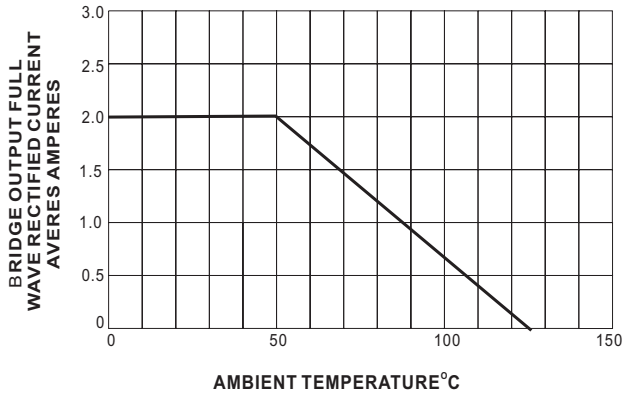


Fig. 1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

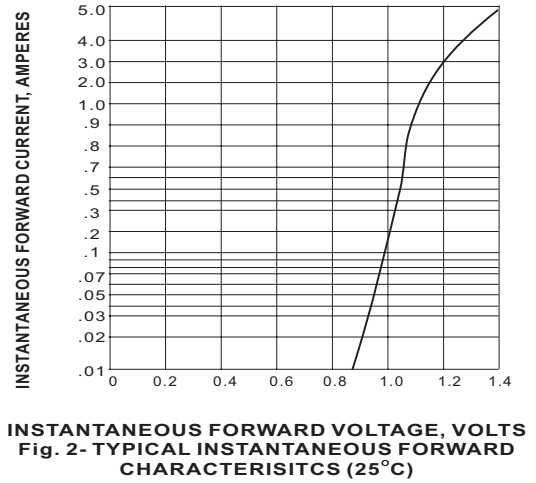


Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS (25°C)

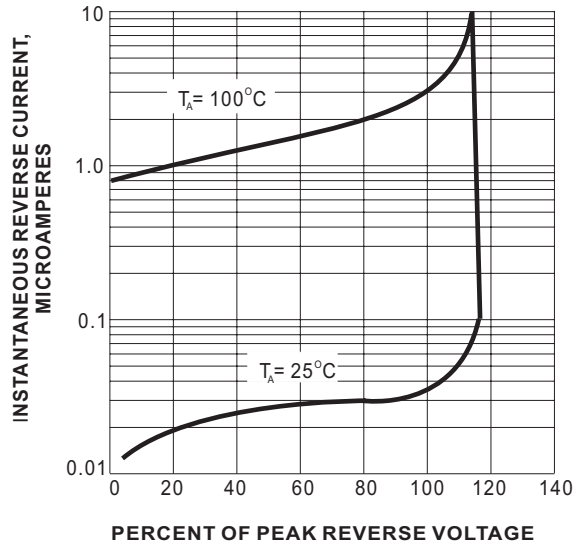


Fig. 3- TYPICAL REAK REVERSE CHARACTERISTICS

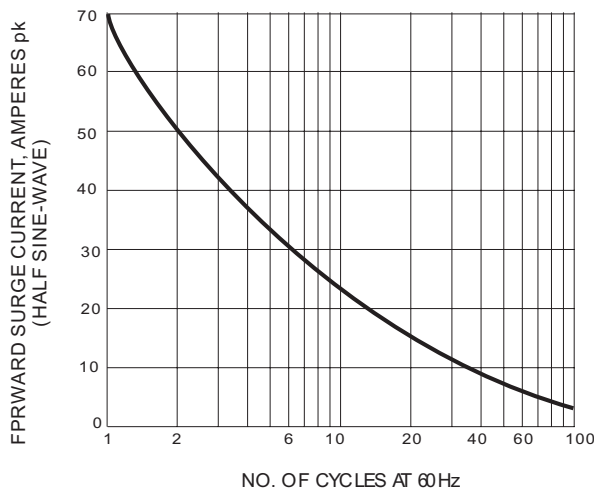


Fig. 4- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT