



DATA SHEET

GBP200~GBP2010

IN-LINE GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE 50 to 1000 Volts **CURRENT** 2.0 Amperes

GBP

Unit: inch (mm)

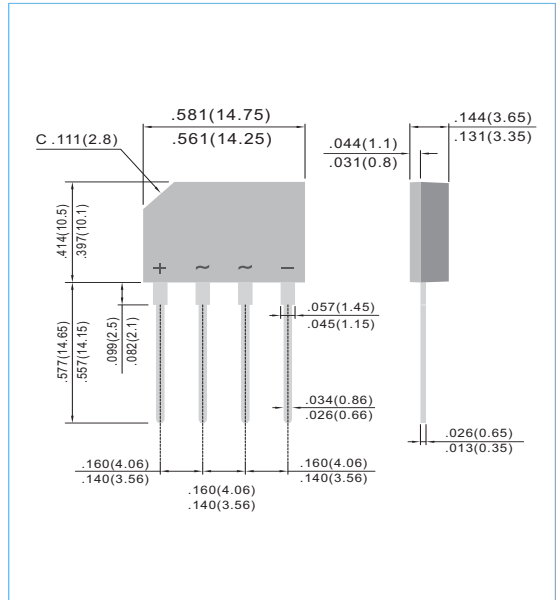
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FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating : 60 Amperes peak
- Both normal and Pb free product are available :
 - Normal : 80~95% Sn, 5~20% Pb
 - Pb free: 98.5% Sn above

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%.

PARAMETER	SYMBOL	GBP200	GBP201	GBP202	GBP204	GBP206	GBP208	GBP2010	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current at $T_A=50^\circ\text{C}$	I_{AV}	2.0							A
I^2t Rating for fusing ($t < 8.3\text{ms}$)	I^2t	15.0							A^2sec
Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60							A
Maximum Instantaneous Forward Voltage Drop per element at 1.0A	V_F	1.0							Vpk
Maximum Reverse Leakage Current at Rated @ $T_A=25^\circ\text{C}$ Dc Blocking Voltage @ $T_A=100^\circ\text{C}$	I_R	5.0 500							μA
Typical Junction Capacitance per leg (Note 1)	C_J	25							pF
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	32 13							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 150							$^\circ\text{C}$

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 0.47×0.47 (12 x 12mm) copper pads.



RATING AND CHARACTERISTIC CURVES

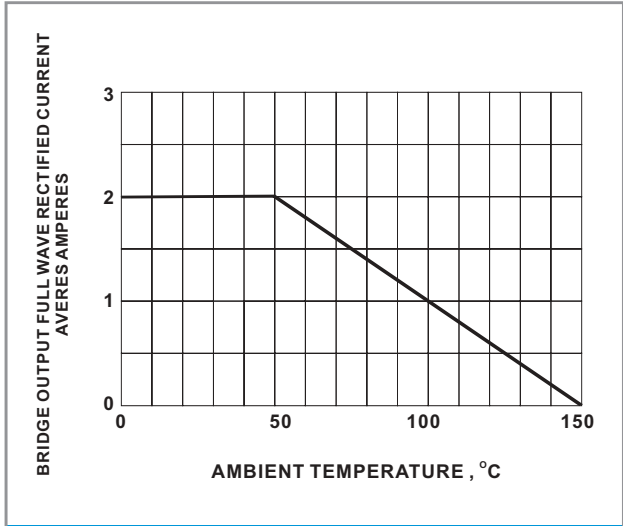


Fig. 1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

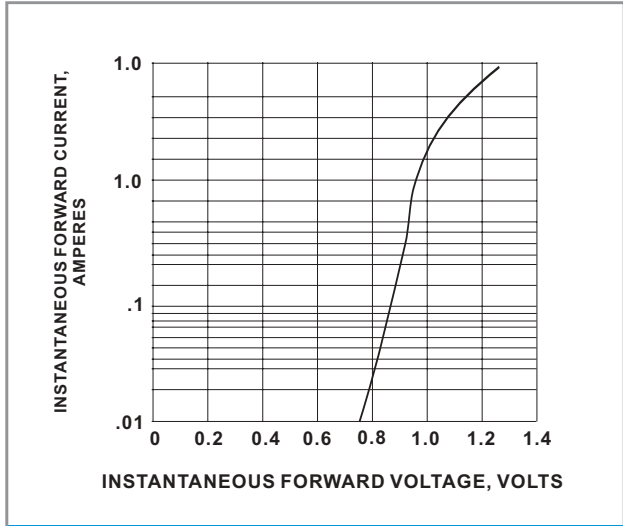


Fig. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

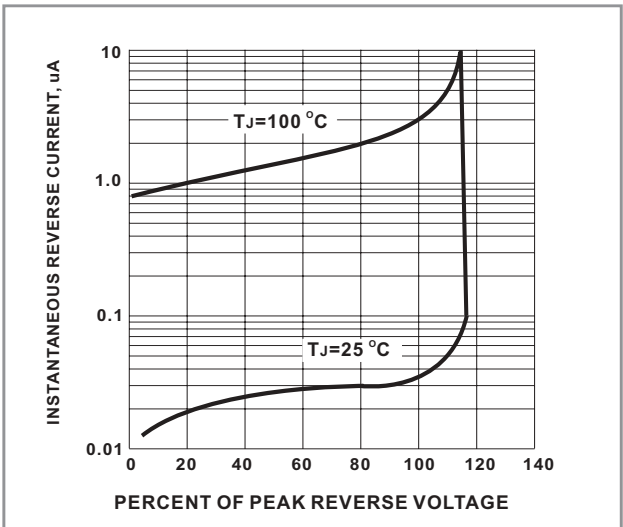


Fig. 3 TYPICAL PEAK REVERSE CHARACTERISTICS

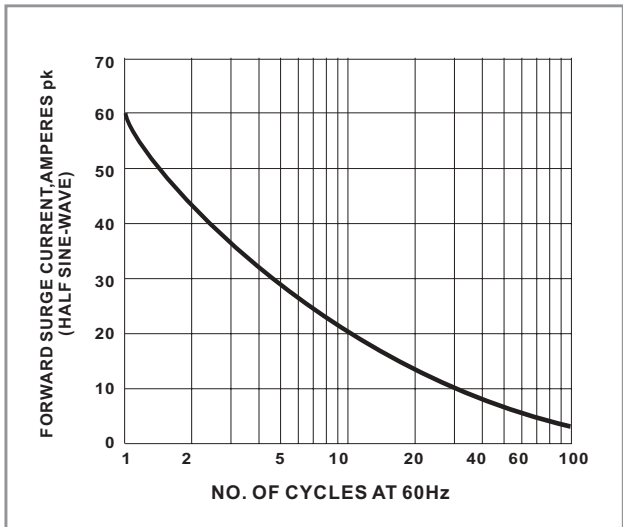


Fig. 4 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT