



DATA SHEET

GBP300~GBP3010

IN-LINE GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE 50 to 1000 Volts **CURRENT** 3.0 Amperes

GBP

Unit: inch (mm)

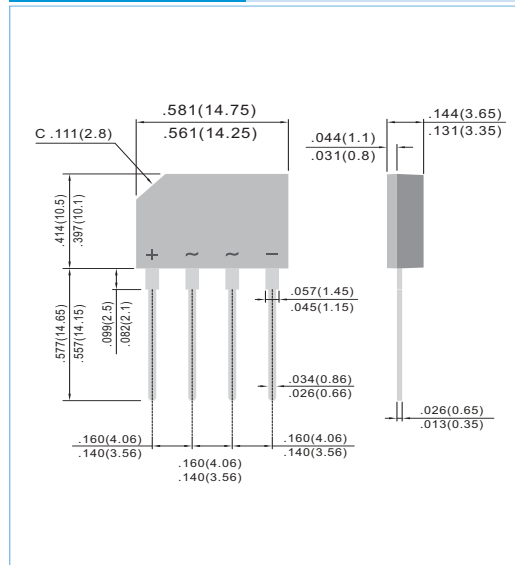
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FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- 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	GBP300	GBP301	GBP302	GBP304	GBP306	GBP308	GBP3010	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 TA=50 °C	I _{AV}					3.0			A
I ² t Rating for fusing (t<8.3ms)	I ² t					20			A ² sec
Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method)	I _{FSM}					70			A
Maximum Instantaneous Forward Voltage Drop per element at 1.5A	V _F					1.0			V _{pk}
Maximum Reverse Leakage Current at Rated @ TA=25°C Dc Blocking Voltage @ TA=100°C	I _R					5.0 500			uA
Typical Junction Capacitance per leg (Note 1)	C _J					25			pF
Typical Thermal Resistance per leg (Note 2)	R _{θJA} R _{θJL}					34 15			°C/W
Operating Junction and Storage Temperature Range	T _J , 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.



RATING AND CHARACTERISTIC CURVES

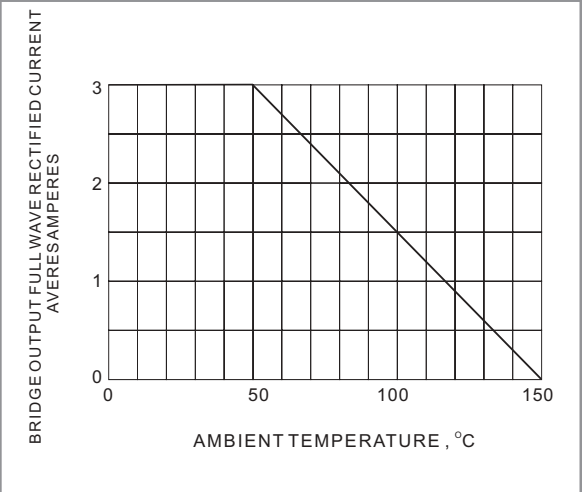


Fig. 1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

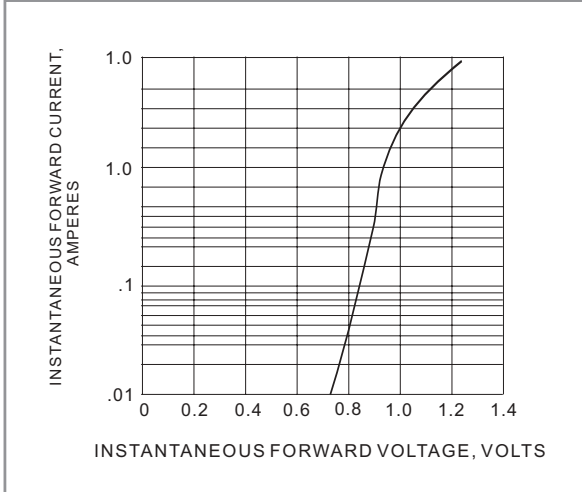


Fig. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

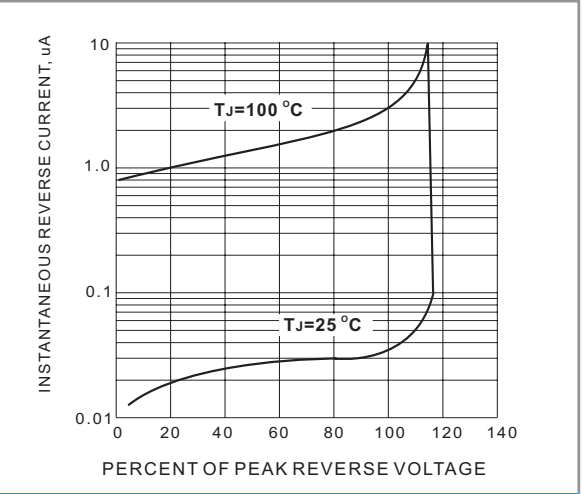


Fig. 3 TYPICAL PEAK REVERSE CHARACTERISTICS

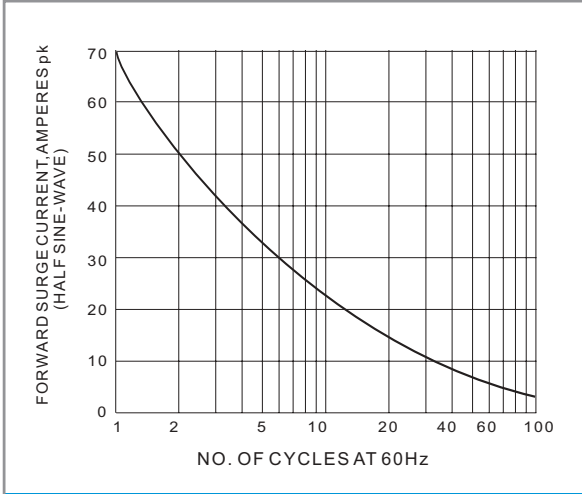


Fig. 4 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT