PANJIT SEMI CONDUCTOR

DATA SHEET

GBP300~GBP3010

IN-LINE GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

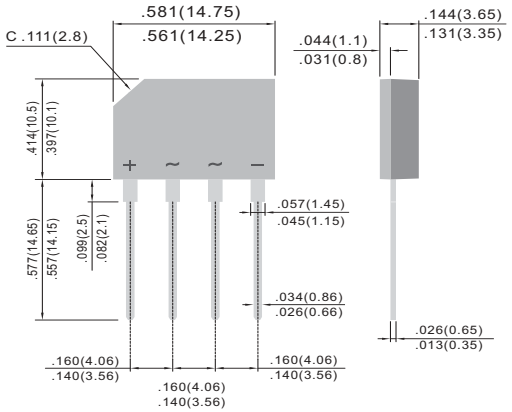
VOLTAGE 50 to 1000 Volts **CURRENT** 3.0 Amperes

Recognized File #E228882

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

GBP Unit: inch (mm)



MECHANICALDATA

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°Cambient 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 T_A=50 °C	I_{AV}	3.0							A
I^2t Rating for fusing (t<8.3ms)	I^2t	20							A^2sec
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							Vpk
Maximum Reverse Leakage Current at Rated @ T_A=25°C Dc Blocking Voltage @ T_A=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)	RθJA RθJL	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

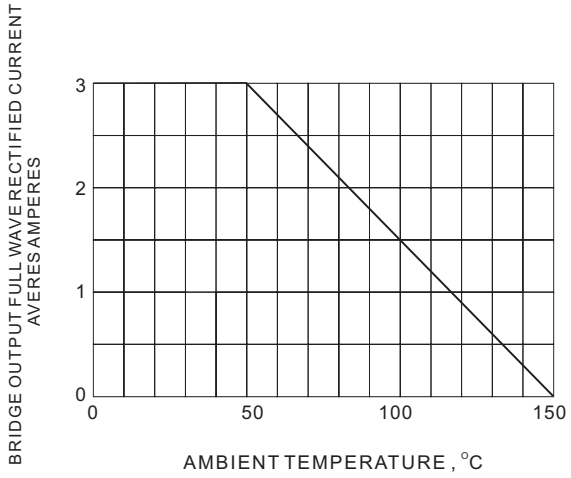


Fig.1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

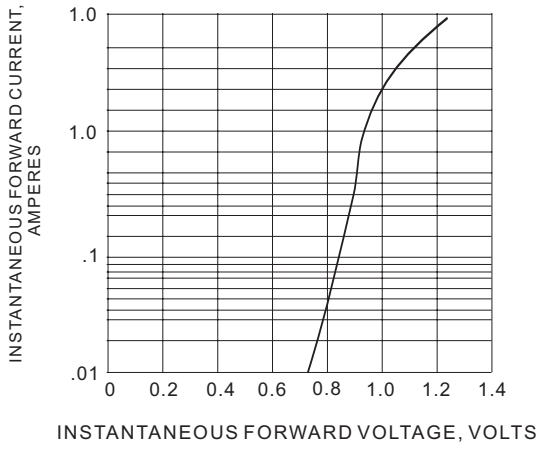


Fig.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

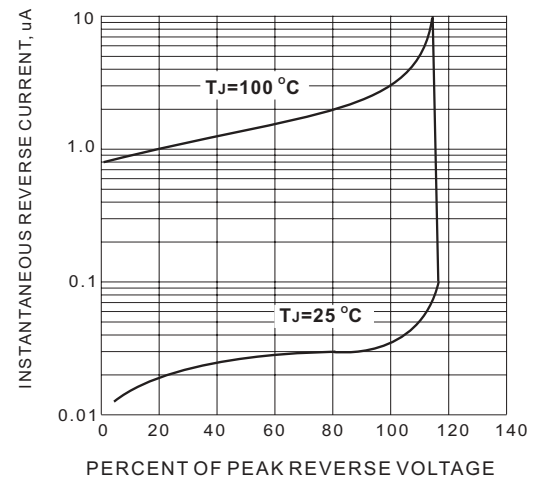


Fig.3 TYPICAL PEAK REVERSE CHARACTERISTICS

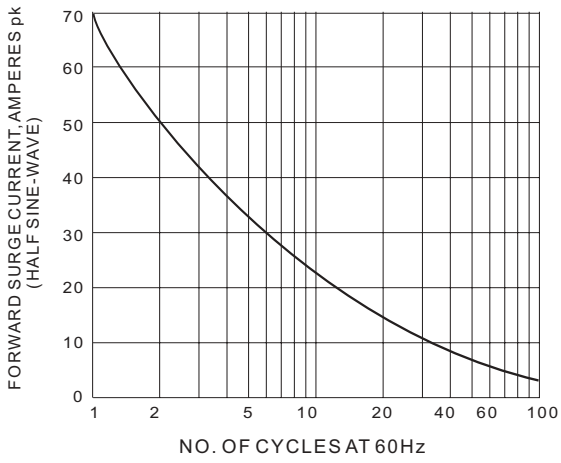


Fig.4 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT