New Jersey Semi-Conductor Products, Inc.

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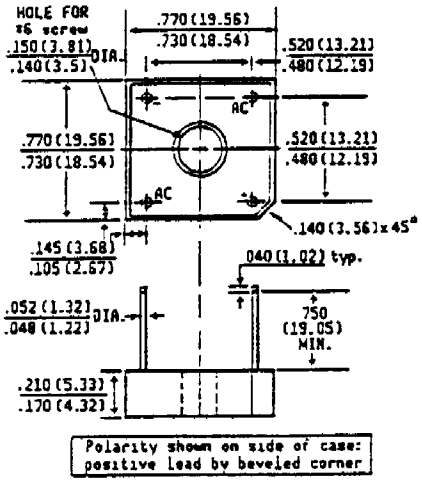
GBPC8005 THRU GBPC810

GLASS PASSIVATED SINGLE - PHASE SILICON BRIDGE RECTIFIER

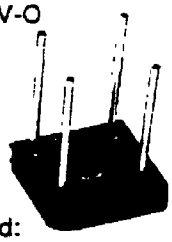
VOLTAGE - 50 to 1000 Volts *CURRENT - 8.0 Amperes*

FEATURES



Dimensions in inches and (millimeters)

- Glass passivated chip junctions
- Plastic material used carries Underwriters Laboratory flammability recognition 94V-O
- High case dielectric strength
- Typical I_R less than 0.5 μ A
- High surge current capability
- Ideal for printed circuit boards
- High temperature soldering guaranteed: 265° C /10 seconds at 5lbs., (2.3 kg) tension



MECHANICAL DATA

Case: Reliable construction utilizing molded plastic technique

Terminals: Leads solderable per MIL-STD-202, Method 208

Mounting Position: Any

Mounting: Thru hole for #6 screw

Weight: 0.15 ounces, 4.4 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

	SYMBOLS	GBPC 8005	GBPC 801	GBPC 802	GBPC 804	GBPC 806	GBPC 808	GBPC 810	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward T_C = 50°C (Note 1) Rectified Output Current at at T_A = 40°C (Note 2)	$I_{(AV)}$				8.0 3.0				Amps
Peak Forward Surge Current Single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}				200				Amps
Rating for fusing (t<8.3ms)	I^2t				160				A^2s
Maximum Instantaneous Forward Voltage Drop per element at 4.0 Amperes	V_F				1.0				Volts
Maximum DC Reverse Current at Rated T_A = 25°C DC Blocking Voltage per Bridge Element T_A = 125°C	I_R				10.0 500				μA
Typical Junction Capacitance per element (Note 3)	C_J				100				pf
Typical Thermal Resistance (Note 1)	RθJC				6.0				°C/W
Operating Temperature Range	T_J				-55 to +150				°C
Storage Temperature Range	T_{STG}				-55 to +150				°C

NOTES: 1. Unit mounted on 8.6" sq. x .24" thick (22 x 22 x 0.6 cm) Al. plate.
2. Unit mounted on P.C. board at .375" ,9.5mm lead lengths.
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

Quality Semi-Conductors