

SENSITRON
SEMICONDUCTOR

GBPC800 – GBPC810
8.0A GLASS PASSIVATED BRIDGE RECTIFIER

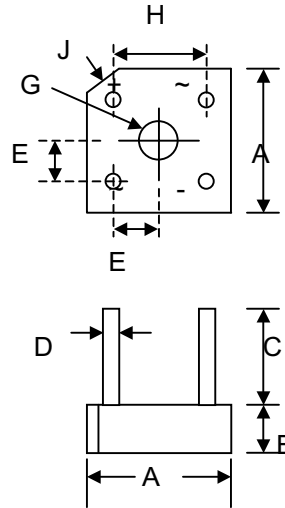
Data Sheet 1348, Rev. B

Features

- Glass Passivated Die Construction
- High Current Capability
- High Case Dielectric Strength
- High Surge Current Capability
- Ideal for Printed Circuit Board Application
- Plastic Material has Underwriters Laboratory Flammability Classification 94V-O
- UL Recognized File # E223064

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Marked on Body
- Weight: 5.4 grams (approx.)
- Mounting Position: Through Hole for #6 Screw
- Mounting Torque: 5.0 Inch-pounds Maximum
- Marking: Type Number



KBPC-8				
Dim	Min	Max	Min	Max
A	18.54	19.56	0.730	0.770
B	6.35	7.60	0.25	0.299
C	19.00	—	0.748	—
D	1.27 Ø Typical		0.05 Ø Typical	
E	5.33	7.37	0.210	0.290
G	Hole for #6 screw			
	3.60	4.00	0.142	0.157
H	12.20	13.20	0.480	0.520
J	2.38 X 45° Typical		0.094 X 45° Typical	
	In mm		In inch	

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	GBPC 800	GBPC 801	GBPC 802	GBPC 804	GBPC 806	GBPC 808	GBPC 810	Unit
Peak Repetitive Reverse Voltage	V _{RRM}								
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V _R								
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @T _A = 50°C	I _O	8.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	160							A
Forward Voltage (per element) @I _F = 4.0A	V _{FM}	1.1							V
Peak Reverse Current @T _C = 25°C At Rated DC Blocking Voltage @T _C = 125°C	I _R	5.0 500							µA
I ² t Rating for Fusing (t<8.3ms) (Note 2)	I ² _t	160							A ² s
Typical Junction Capacitance (Note 3)	C _j	200							pF
Typical Thermal Resistance (Note 4)	R _{θJC}	6.0							K/W
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +150							°C

- Note: 1. Mounted on 8.6" sq. x 0.24" thick Al. plate.
2. Non-repetitive, for t > 1ms and < 8.3ms.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
4. Thermal resistance junction to case per element.

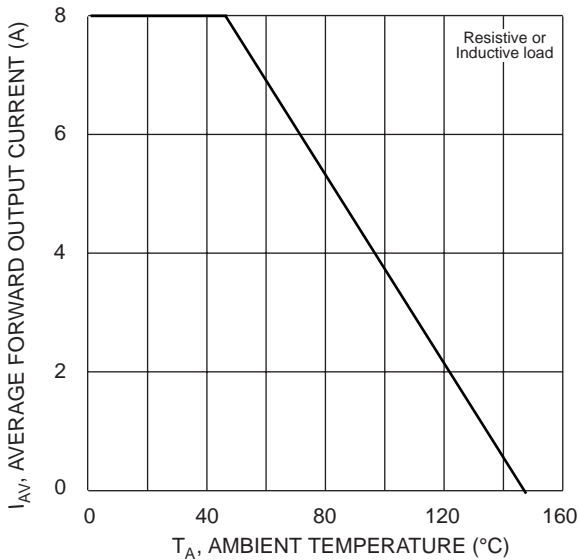


Fig. 1 Forward Current Derating Curve

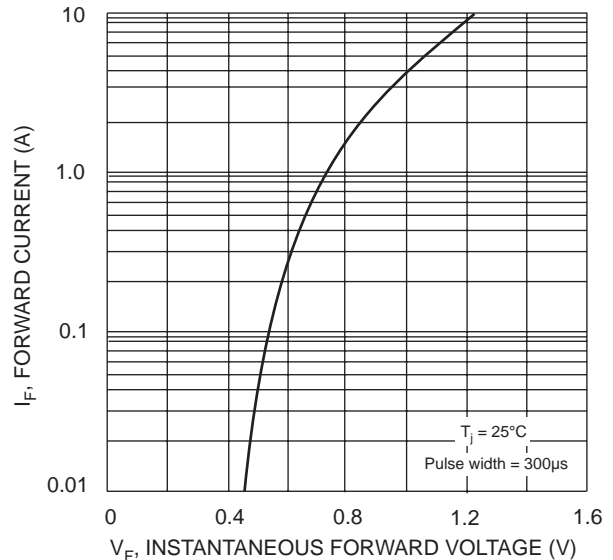


Fig. 2 Typical Forward Characteristics, per element

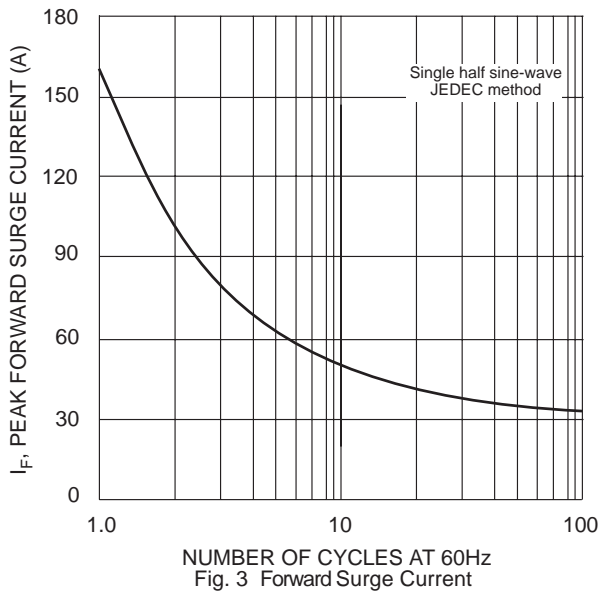


Fig. 3 Forward Surge Current

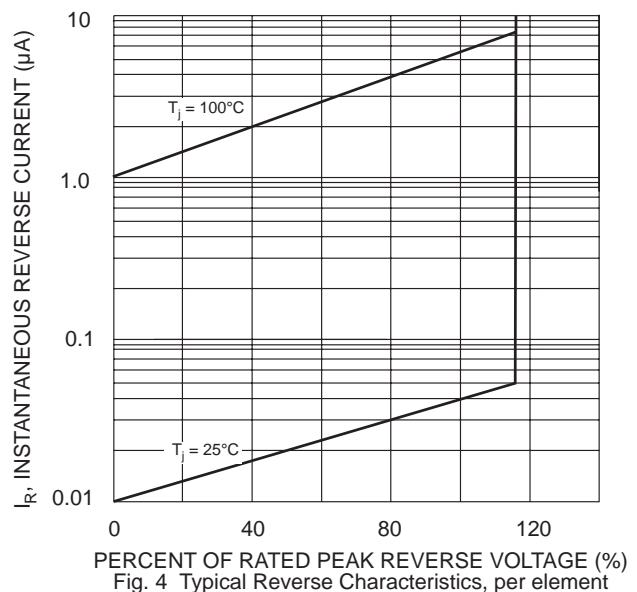


Fig. 4 Typical Reverse Characteristics, per element

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