

# SENSITRON

## SEMICONDUCTOR

# B40C1000 – B500C1000

## 1.0A BRIDG RECTIFIER

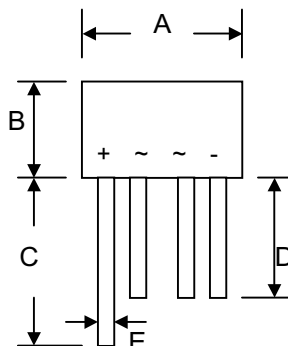
### Data Sheet 1290 Rev.A

#### Features

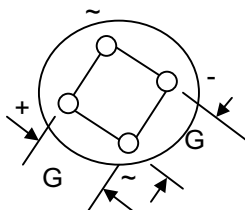
- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- UL Recognized File # E223064

#### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 1.1 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



WOB				
Dim	Min	Max	Min	Max
A	8.60	9.10	0.339	0.358
B	5.0	5.50	0.197	0.217
C	27.9	—	1.098	—
D	25.4	—	1	—
E	0.71	0.81	0.028	0.032
G	4.60	5.60	0.181	0.220
In mm			In inch	



#### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

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

Characteristic	Symbol	B40C 1000	B80C 1000	B125C 1000	B250C 1000	B380C 1000	B500C 1000	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	100	200	300	600	900	1200	V
Input Voltage Recommended	V <sub>R(RMS)</sub>	40	80	125	250	380	500	V
Average Rectified Output Current (Note 1) @T <sub>A</sub> = 50°C	I <sub>O</sub>	1.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	45						A
Forward Voltage (per element) @I <sub>F</sub> = 1.0A	V <sub>FM</sub>	1.0						V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	10 500						μA
Operating Temperature Range	T <sub>j</sub>	-55 to +125						°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150						°C

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.

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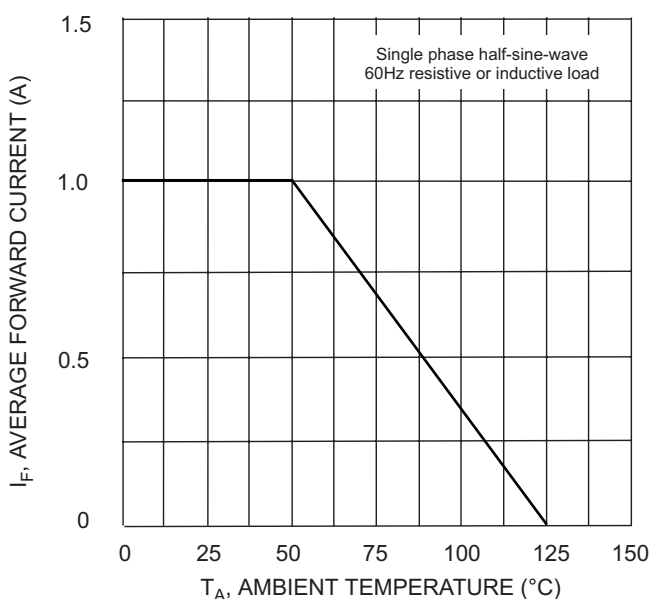


Fig. 1 Forward Current Derating Curve

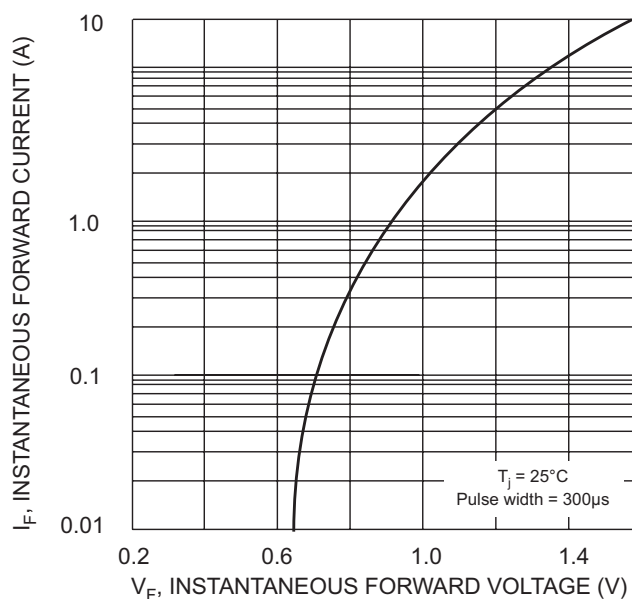


Fig. 2 Typical Forward Characteristics, per element

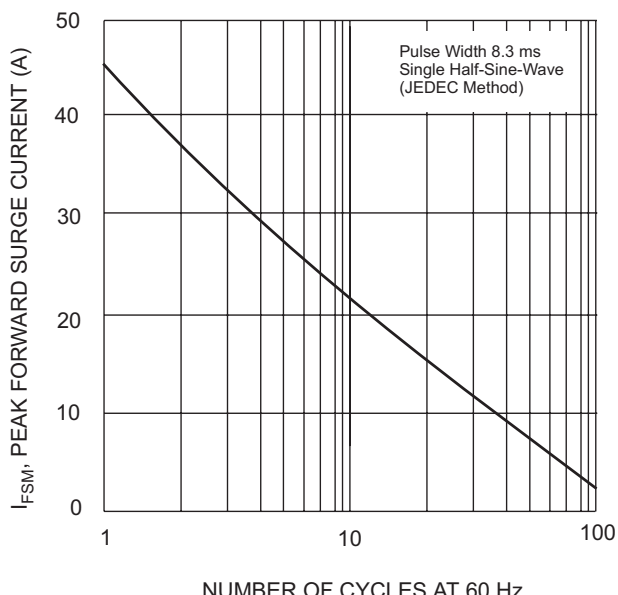


Fig. 3 Max Non-Repetitive Surge Current

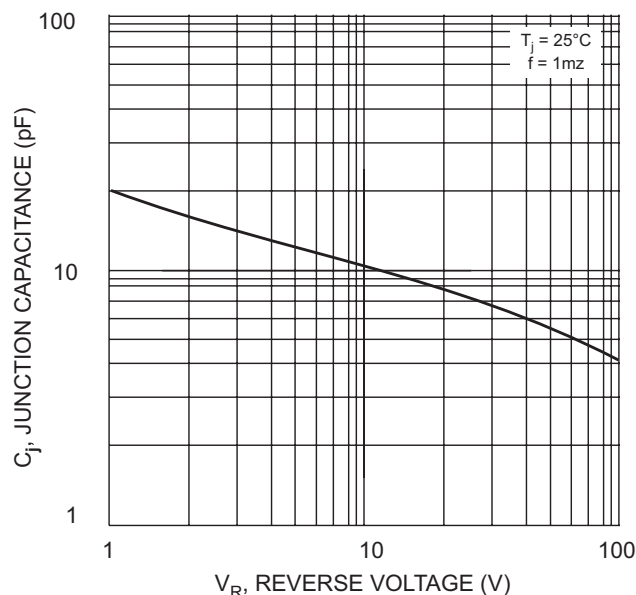


Fig. 4 Typical Junction Capacitance

**TECHNICAL DATA**

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