WTE
POWER SEMICONDUCTORS

B40C1000 – B500C1000

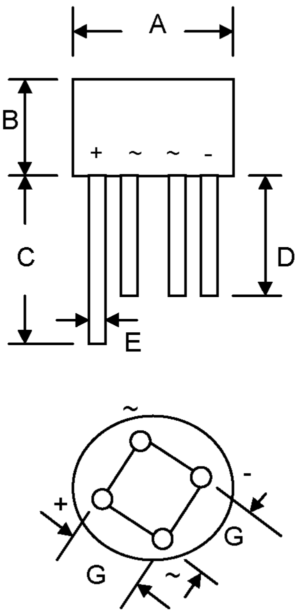
1.0A BRIDGE RECTIFIER

Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards

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**
A	8.60	9.10
B	5.0	5.50
C	27.9	—
D	25.4	—
E	0.71	0.81
G	4.60	5.60
All Dimensions in mm		

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	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_{RRM} V_{RWM} V_R	100	200	300	600	900	1200	V
Input Voltage Recommended	$V_{R(RMS)}$	40	80	125	250	380	500	V
Average Rectified Output Current (Note 1) @T_A = 50°C	I_O	1.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	45						A
Forward Voltage (per element) @I_F = 1.0A	V_{FM}	1.0						V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	10 500						µA
Operating Temperature Range	T_j	-55 to +125						°C
Storage Temperature Range	T_{STG}	-55 to +150						°C

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

© 2002 Won-Top Electronics

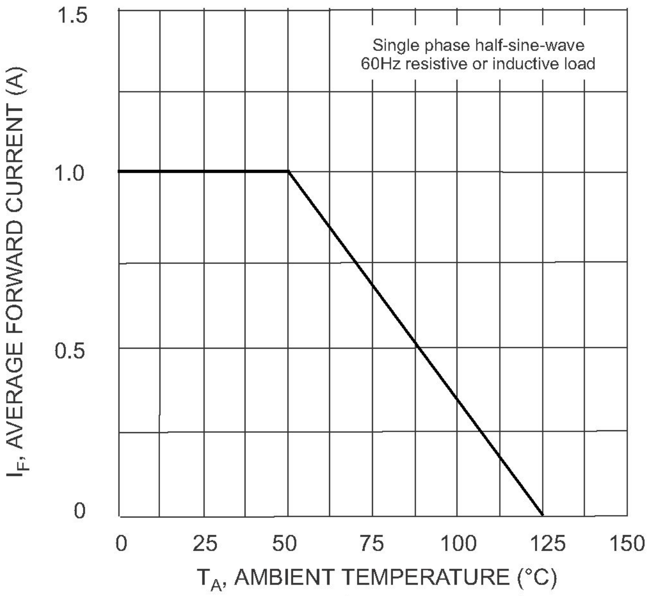


Fig. 1 Forward Current Derating Curve

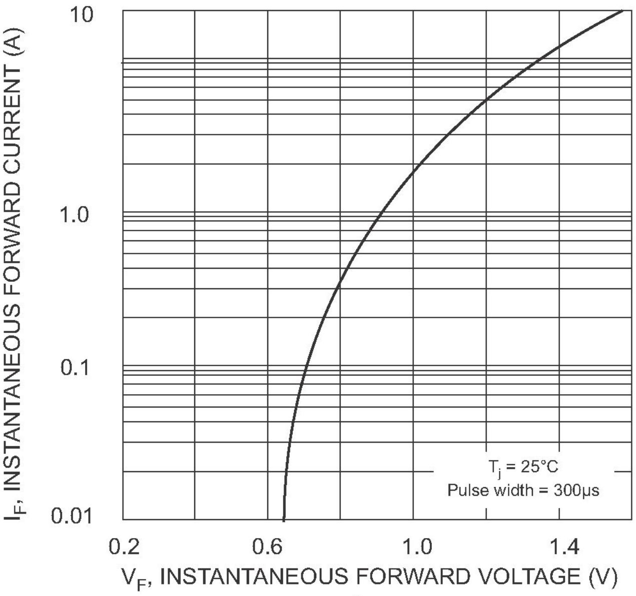


Fig. 2 Typical Forward Characteristics, per element

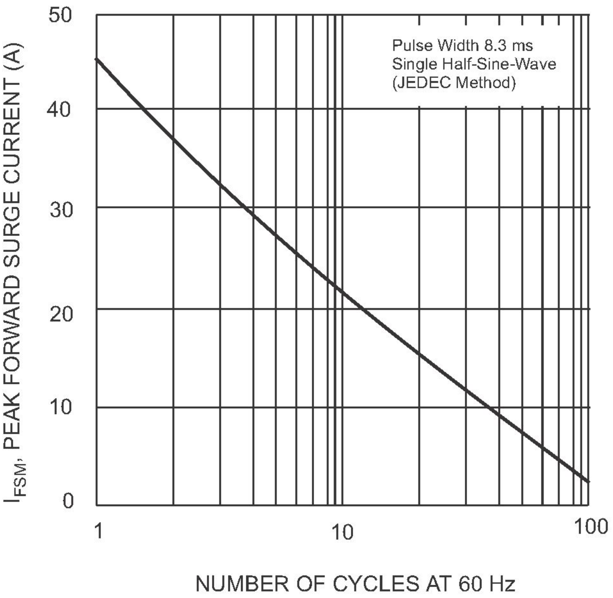


Fig. 3 Max Non-Repetitive Surge Current

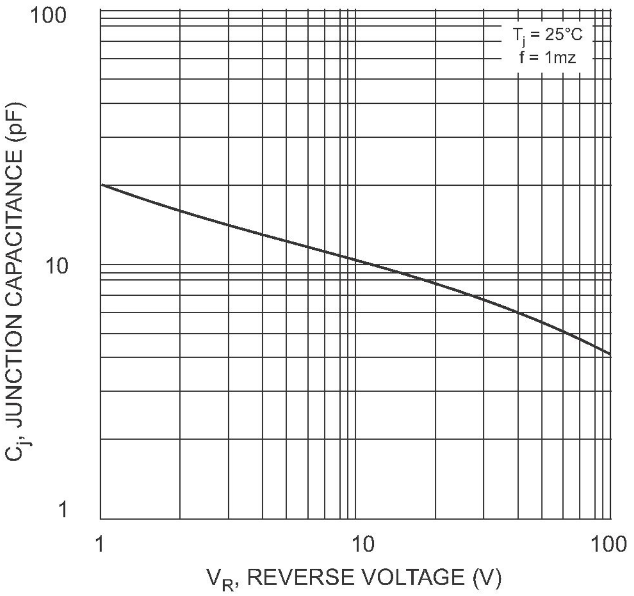


Fig. 4 Typical Junction Capacitance