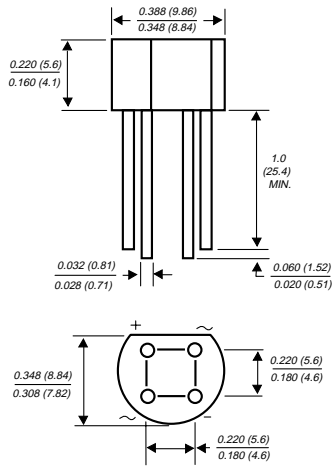


# B40C1000G THRU B380C1000G

## GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage - 65 to 600 Volts      Forward Current -1.0 Ampere

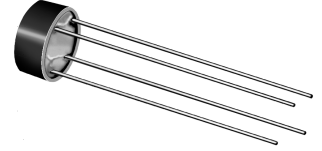
### Case Style WOG



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junctions
- ◆ High case dielectric strength
- ◆ Typical  $I_R$  less than  $0.1 \mu A$
- ◆ High overload surge current
- ◆ Ideal for printed circuit boards
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension



### MECHANICAL DATA

**Case:** Molded plastic body over passivated junctions  
**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026  
**Mounting Position:** Any  
**Weight:** 0.04 ounce, 1.1 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

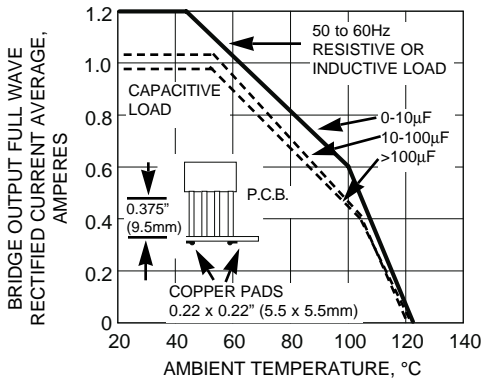
Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	B40 C1000G	B80 C1000G	B125 C1000G	B250 C1000G	B380 C1000G	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	65	125	200	400	600	Volts
Maximum RMS input voltage R + C-load	$V_{RMS}$	40	80	125	250	380	Volts
Maximum DC blocking voltage	$V_{DC}$	65	125	200	400	600	Volts
Maximum peak working voltage	$V_{RWM}$	90	180	300	600	900	Volts
Maximum non-repetitive peak voltage	$V_{RSM}$	100	200	350	600	1000	Volts
Maximum repetitive peak forward surge current	$I_{FRM}$	10.0					Amps
Maximum average forward output current for free air operation at $T_A=45^\circ C$ R + L-Load C-Load	$I_{(AV)}$	1.2 1.0					Amps
Peak forward surge current single sine wave on rated load (JEDEC Method)	$I_{FSM}$	45.0					Amps
Rating for fusing at $T_J=125^\circ C$ ( $t<8.3ms$ )	$I^2t$	10.0					A <sup>2</sup> sec
Minimum series resistor C-load at $V_{RMS} = \pm 10\%$	$R_T$	1.0	2.0	4.0	8.0	12.0	Ohms
Maximum load capacitance +50% -10%	$C_L$	5000	2500	1000	500	200	$\mu F$
Maximum instantaneous forward voltage drop per leg at 1.0A	$V_F$	1.0					Volts
Maximum reverse current at rated repetitive peak voltage per leg $T_A=25^\circ C$	$I_R$	10.0					$\mu A$
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$ $R_{\theta JL}$	36.0 11.0					$^\circ C/W$
Operating junction temperature range	$T_J$	-40 to +125					$^\circ C$
Storage temperature range	$T_{STG}$	-40 to +150					$^\circ C$

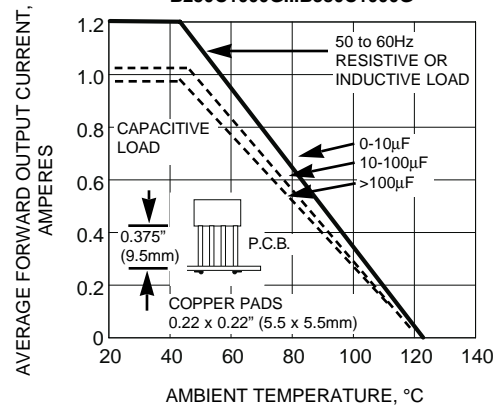
**NOTE:**  
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. at 0.375" (9.5mm) lead lengths with 0.2 x 0.2" (5.5 x 5.5mm) copper pads

# RATINGS AND CHARACTERISTICS CURVES B40C1000G THRU B380C1000G

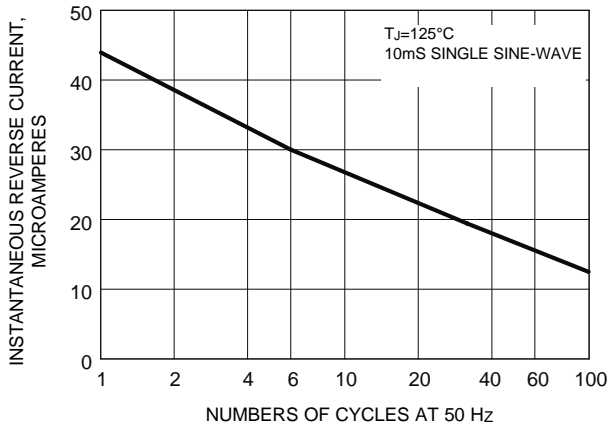
**FIG. 1 - DERATING CURVE  
OUTPUT RECTIFIED CURRENT  
B40C1000G...B125C1000G**



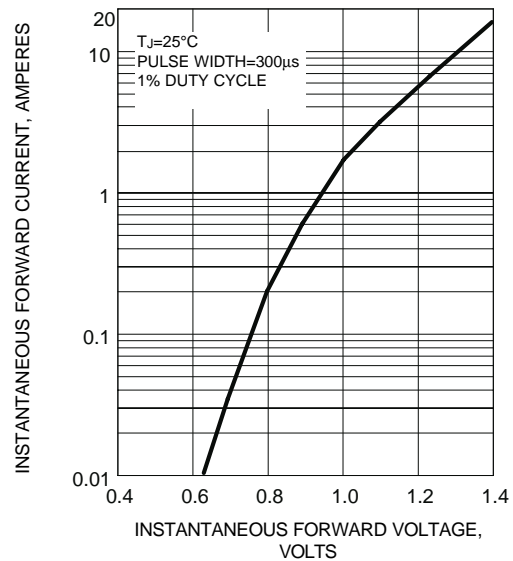
**FIG. 2 - DERATING CURVES FOR  
OUTPUT RECTIFIED CURRENT  
B250C1000G...B380C1000G**



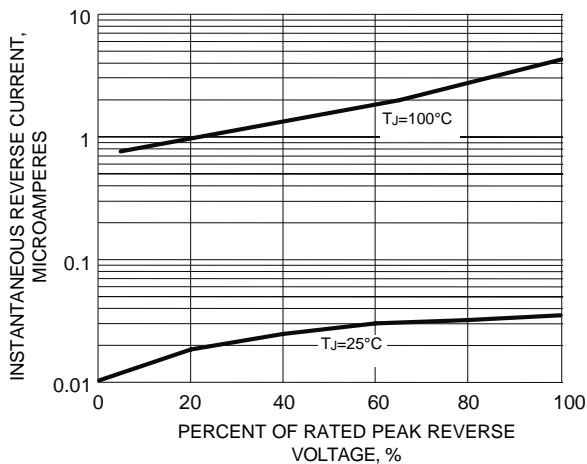
**FIG. 3 - MAXIMUM NON-REPETITIVE PEAK  
FORWARD CURRENT PER LEG**



**FIG. 4 - TYPICAL FORWARD CHARACTERISTICS  
PER LEG**



**FIG. 5 - TYPICAL REVERSE  
CHARACTERISTICS PER LEG**



**FIG. 6 - TYPICAL JUNCTION CAPACITANCE  
PER LEG**

