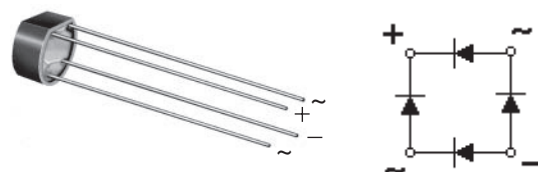


## Glass Passivated Single-Phase Bridge Rectifier

### Major Ratings and Characteristics

$I_{F(AV)}$	1.5 A
$V_{RRM}$	65 V to 600 V
$I_{FSM}$	50 A
$I_R$	10 $\mu$ A
$V_F$	1.0 V
$T_j$ max.	125 °C

Case Style WOG



### Features

- Ideal for printed circuit boards
- High case dielectric strength
- High surge current capability
- Typical  $I_R$  less than 0.1  $\mu$ A
- Meets MSL level 1, per J-STD-020C

### Mechanical Data

**Case:** WOG

Epoxy meets UL-94V-0 Flammability rating

**Terminals:** Silver plated (E4 Suffix) leads, solderable per J-STD-002B and MIL-STD-750, Method 2026

**Polarity:** As marked on body

### Typical Applications

General purpose use in ac-to-dc bridge full wave rectification for Power Supply, Adapter, Charger, Lighting Ballaster on Consumers and Home Appliances applications

### Maximum Ratings

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	B40 C1500G	B80 C1500G	B125 C1500G	B250 C1500G	B380 C1500G	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	65	125	200	400	600	V
Maximum RMS input voltage R + C-load	$V_{RMS}$	40	80	125	250	380	V
Maximum DC blocking voltage	$V_{DC}$	65	125	200	400	600	V
Maximum peak working voltage	$V_{RWM}$	90	180	300	600	800	V
Maximum non-repetitive peak voltage	$V_{RSM}$	100	200	350	600	1000	V
Maximum repetitive peak forward surge current	$I_{FRM}$	10					A
Maximum average forward output current for free air operation at $T_A = 45$ °C	$I_{F(AV)}$	1.6 1.5					A
Peak forward surge current single sine wave on rated load	$I_{FSM}$	50					A
Rating for fusing at $T_J = 125$ °C ( $t < 100$ ms)	$I^2t$	12.5					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	$\Omega$
Maximum load capacitance + 50 % - 10 %	$C_L$	5000	2500	1000	500	200	$\mu$ F
Operating junction temperature range	$T_J$	- 40 to + 125					°C
Storage temperature range	$T_{STG}$	- 40 to + 150					°C

### Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Test condition	Symbol	B40 C1500G	B80 C1500G	B125 C1500G	B250 C1500G	B380 C1500G	Unit
Maximum instantaneous forward voltage drop per leg	at 1.5 A	$V_F$	1.0					V
Maximum reverse current at rated repetitive peak voltage per leg	$T_A = 25\text{ }^{\circ}\text{C}$	$I_R$	10					$\mu\text{A}$

### Thermal Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	B40 C1500G	B80 C1500G	B125 C1500G	B250 C1500G	B380 C1500G	Units
Typical thermal resistance per leg <sup>(1)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	36 11					$^{\circ}\text{C/W}$

Notes:

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. at 0.375" (9.5 mm) lead lengths with 0.22 x 0.22".

### Ratings and Characteristics Curves

( $T_A = 25\text{ }^{\circ}\text{C}$  unless otherwise noted)

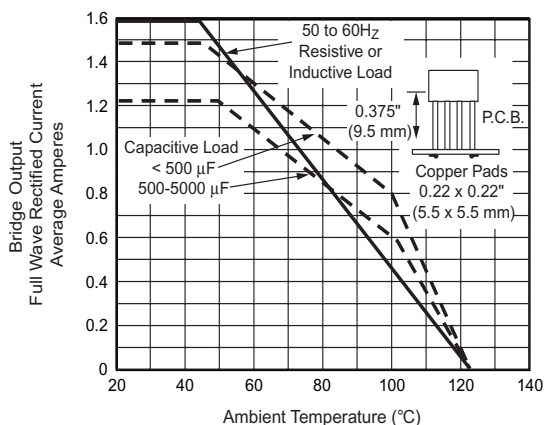


Figure 1. Derating Curves Output Rectified Current for B40C1500G...B125C1500G

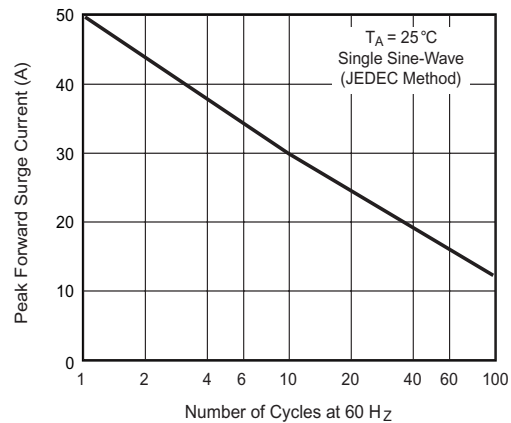


Figure 3. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

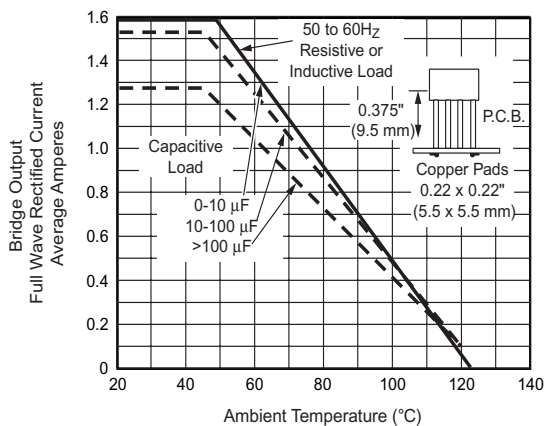


Figure 2. Derating Curves Output Rectified Current for B250C1500G...B380C1500G

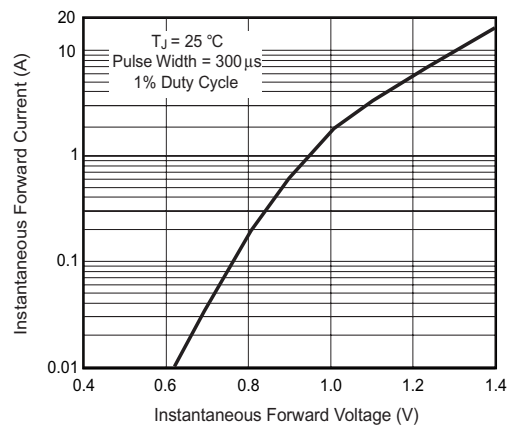


Figure 4. Typical Forward Characteristics Per Leg

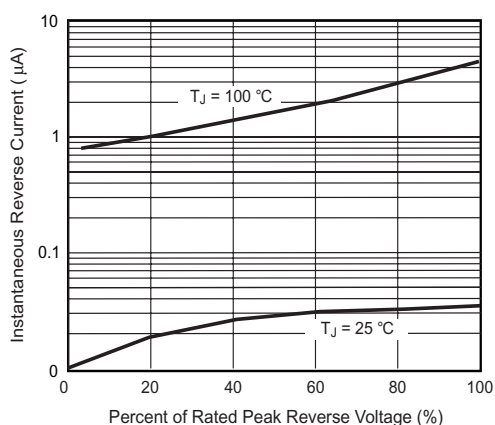


Figure 5. Typical Reverse Characteristics Per Leg

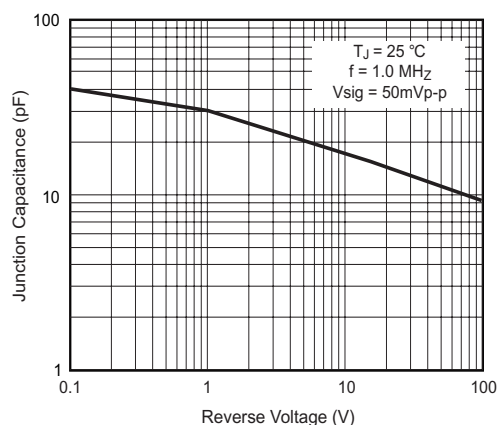


Figure 6. Typical Junction Capacitance Per Leg

## Package outline dimensions in inches (millimeters)

