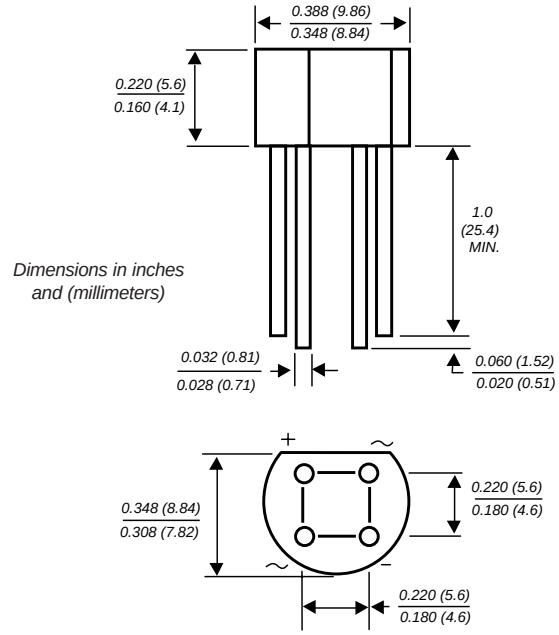
Glass Passivated Single-Phase Bridge Rectifiers

Reverse Voltage 65 and 600V
Forward Current 1.5A

Case Style WOG



Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- High case dielectric strength
- Typical I_R less than 0.1μA
- High surge current capability
- 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 oz., 1.1 g
Packaging codes/options:
1/100 ea. per Bulk Bag

Maximum Ratings & Thermal Characteristics

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 R + L-load C-Load	$I_{F(AV)}$	1.6 1.5					A
Peak forward surge current single sine wave on rated load at T_J=125°C	I_{FSM}	50					A
Rating for fusing at T_J=125°C (t<100ms)	I^2t	12.5					A^2sec
Minimum series resistor C-load at V_{RMS} = ±10%	R_t	1.0	2.0	4.0	8.0	12	Ω
Maximum load capacitance +50% -10%	C_L	5000	2500	1000	500	200	μF
Typical thermal resistance per leg (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	36 11					°C/W
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.

Maximum instantaneous forward voltage drop per leg at 1.5A	V_F	1.0	V
Maximum reverse current at rated repetitive peak voltage per leg T_A = 25°C	I_R	10	μA

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"

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Fig. 1 – Derating Curves Output Rectified Current for B40C1500G...B125C150-0G

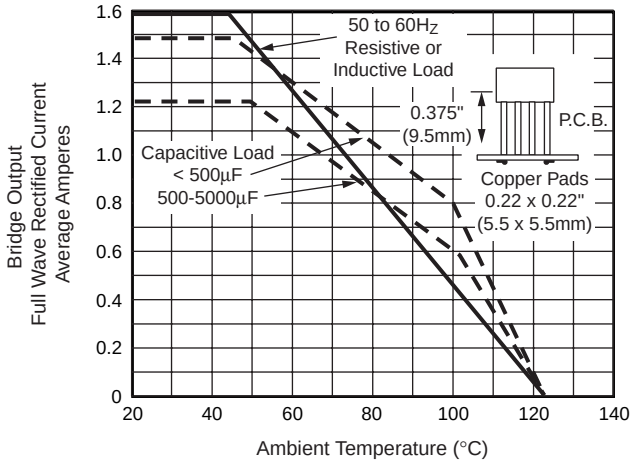


Fig. 2 – Derating Curves Output Rectified Current for B250C1500G...B380C1500G

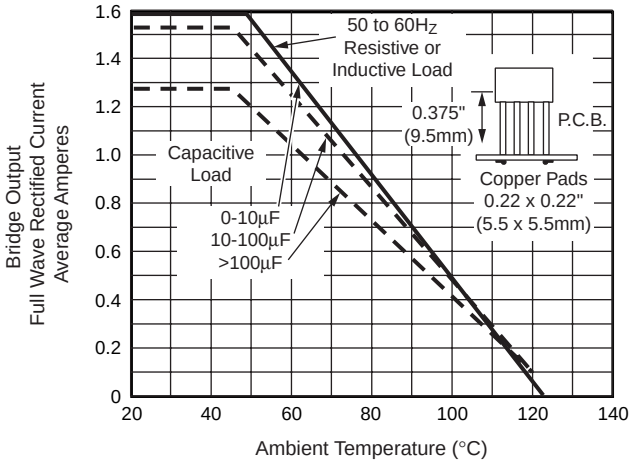


Fig. 3 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

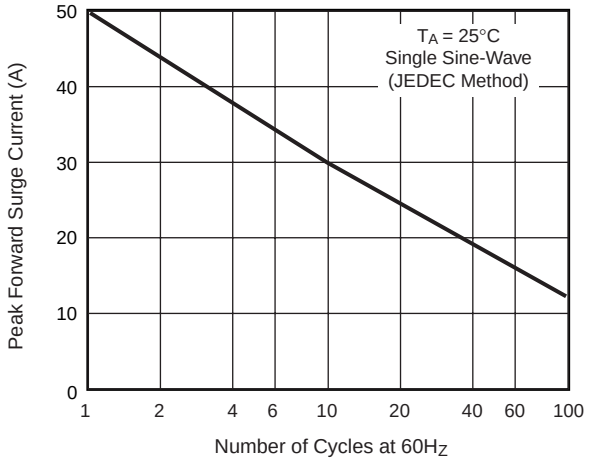


Fig. 4 – Typical Forward Characteristics Per Leg

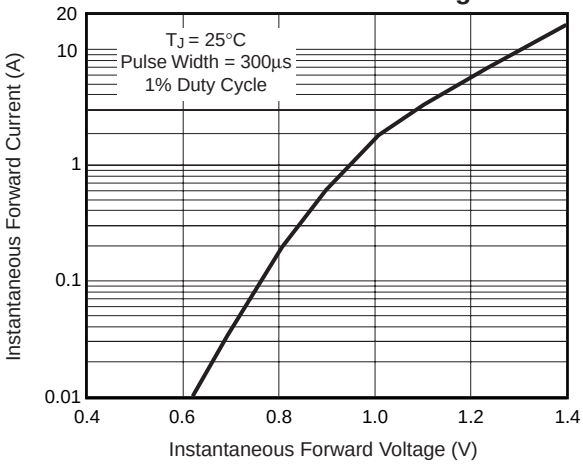


Fig. 5 – Typical Reverse Characteristics Per Leg

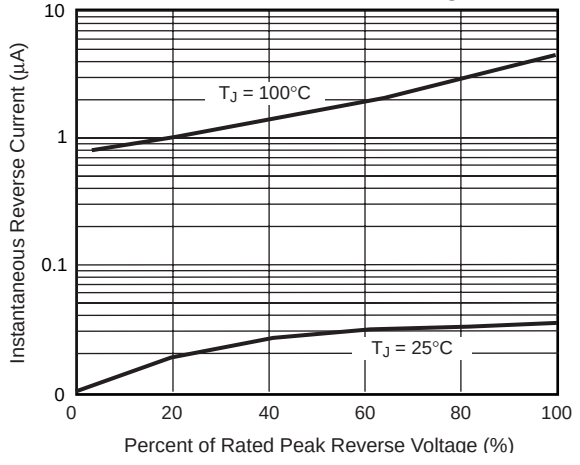


Fig. 6 – Typical Junction Capacitance Per Leg