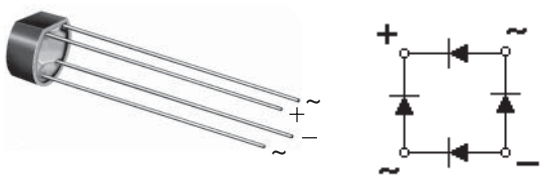
Glass Passivated Single-Phase Bridge Rectifier

Major Ratings and Characteristics

$I_{F(AV)}$	1.5 A
V_{RRM}	50 V to 1000 V
I_{FSM}	50 A
I_R	5 µA
V_F	1.0 V
T_j max.	150 °C

Case Style WOG



Features

- UL Recognition, file number E54214
- Ideal for printed circuit boards
- Typical I_R less than 0.1 µA
- High case dielectric strength
- High surge current capability
- Solder Dip 260 °C, 40 seconds

Mechanical Data

Case: WOG

Epoxy meets UL-94V-0 Flammability rating

Terminals: Silver plated (E4 Suffix) leads, solderable per J-STD-002B and JESD22-B102D

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	Symbols	W005G	W01G	W02G	W04G	W06G	W08G	W10G	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at 0.375" (9.5 mm) lead length at T_A = 25 °C	$I_{F(AV)}$	1.5							A
Peak forward surge current single sine-wave superimposed on rated load	I_{FSM}	50							A
Rating for fusing (t < 8.3 ms)	I^2t	10							A^2sec
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150							°C

Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Test condition	Symbols	W005G	W01G	W02G	W04G	W06G	W08G	W10G	Units
Maximum instantaneous forward voltage drop per leg	at 1.0 A	V_F	1.0							V
Maximum DC reverse current at rated DC blocking voltage per leg	T_A = 25 °C T_A = 125 °C	I_R	5.0 500							µA
Typical junction capacitance per leg	at 4.0 V, 1 MHz	C_J	14							pF

Thermal Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	W005G	W01G	W02G	W04G	W06G	W08G	W10G	Units
Typical thermal resistance per leg (1)	$R_{\theta JA}$ $R_{\theta JL}$	36 11							°C/W

Notes:

(1) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5 mm) lead length P.C.B. mounting. P.C.B size 0.22 x 0.22” (5.5 x 5.5 mm)

Ratings and Characteristics Curves

(T_A = 25 °C unless otherwise noted)

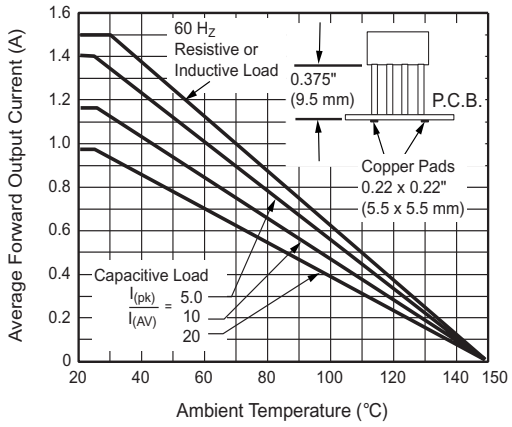


Figure 1. Derating Curve Output Rectified Current

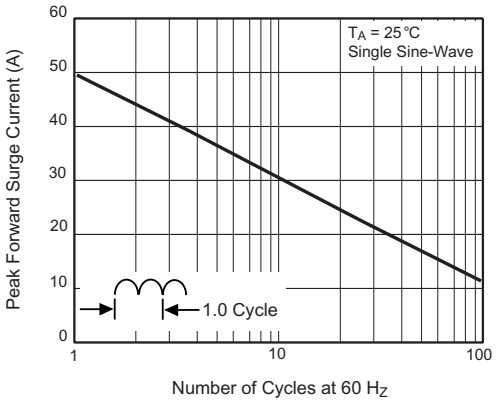


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

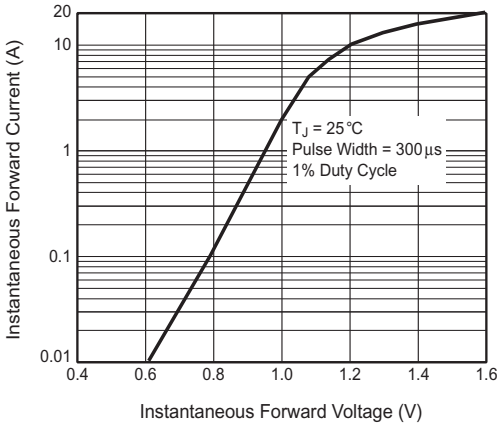


Figure 3. Typical Forward Characteristics Per Leg

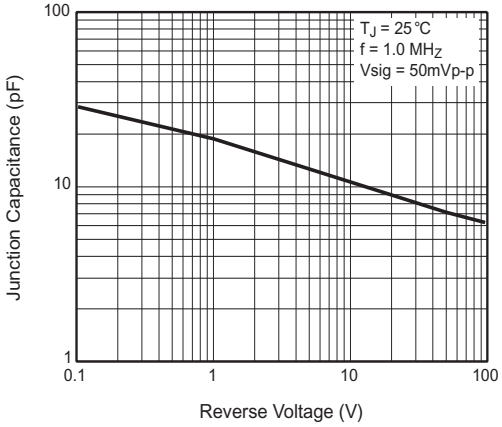


Figure 5. Typical Junction Capacitance Per Leg

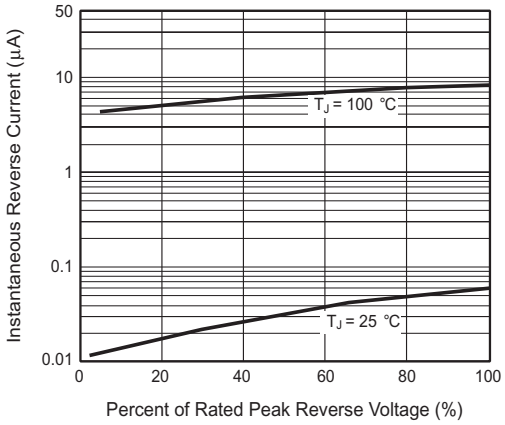


Figure 4. Typical Reverse Leakage Characteristics Per Leg

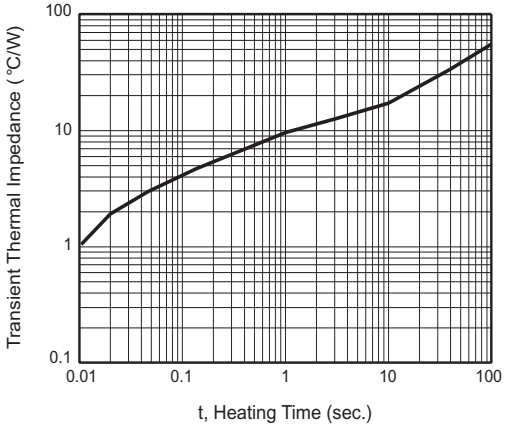
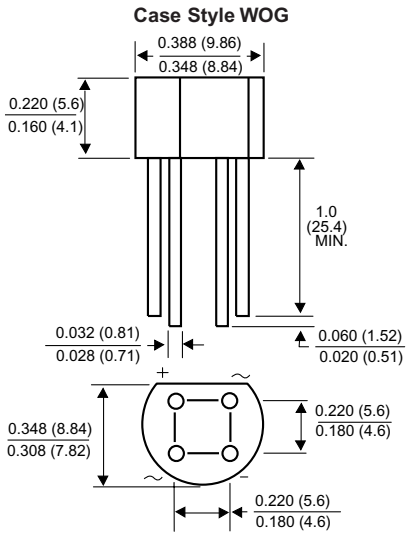


Figure 6. Typical Transient Thermal Impedance

Package outline dimensions in inches (millimeters)



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