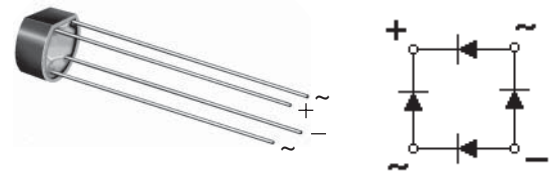


## Glass Passivated Single-Phase Bridge Rectifier

### Major Ratings and Characteristics

$I_{F(AV)}$	1.5 A
$V_{RRM}$	50 V to 1000 V
$I_{FSM}$	50 A
$I_R$	5 $\mu$ A
$V_F$	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  $\mu$ A
- 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 <sup>2</sup> sec
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	$T_A = 25\text{ °C}$ $T_A = 125\text{ °C}$	$I_R$				5.0				$\mu\text{A}$
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 <sup>(1)</sup>	$R_{\theta JA}$ $R_{\theta JL}$				36				$^{\circ}\text{C/W}$
					11				

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

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

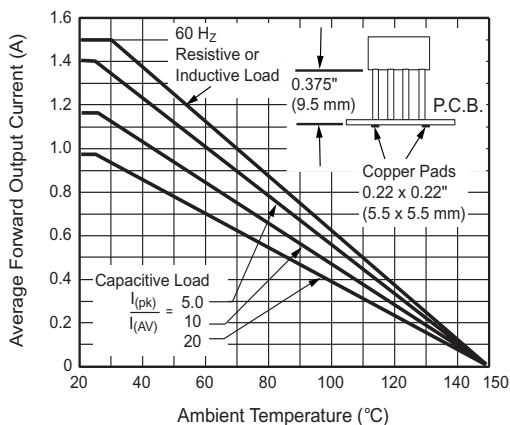


Figure 1. Derating Curve Output Rectified Current

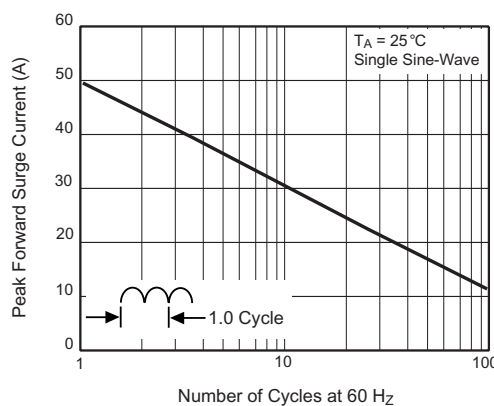


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

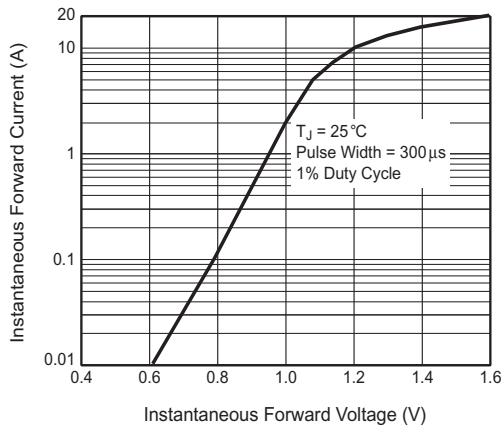


Figure 3. Typical Forward Characteristics Per Leg

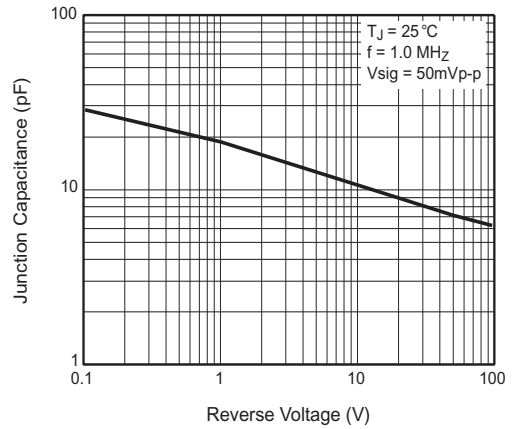


Figure 5. Typical Junction Capacitance Per Leg

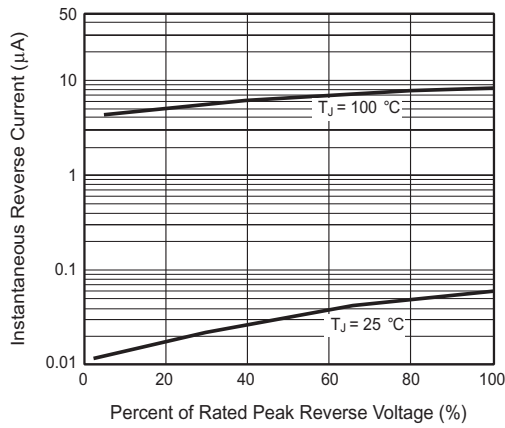


Figure 4. Typical Reverse Leakage Characteristics Per Leg

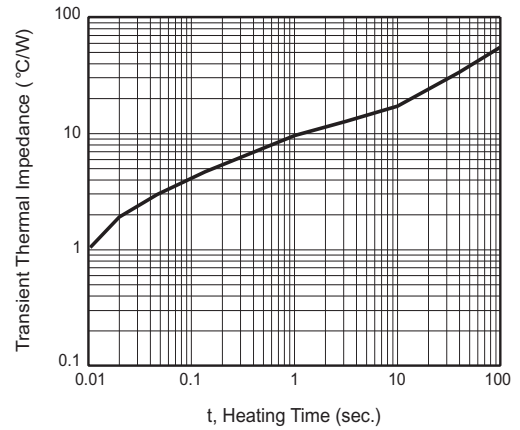
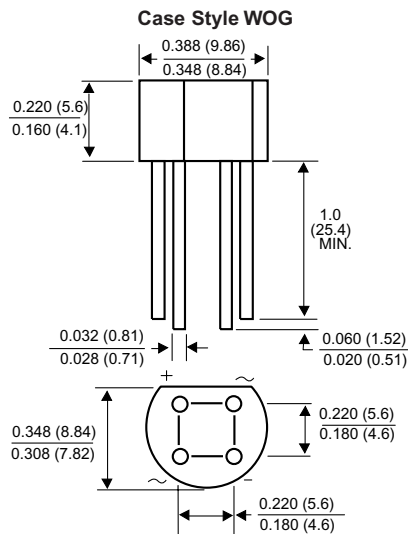


Figure 6. Typical Transient Thermal Impedance

### Package outline dimensions in inches (millimeters)





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