



# W005G thru W10G

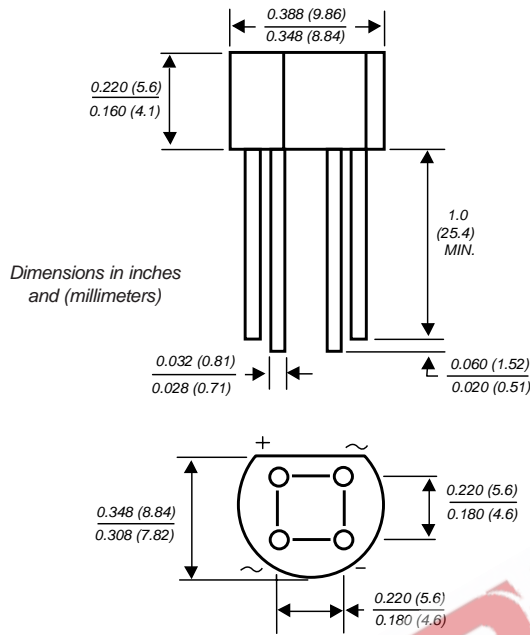
Vishay Semiconductors  
formerly General Semiconductor



## Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 50 and 1000V  
Forward Current 1.5A

Case Style WOG



### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under the Recognized Component Index, file number E54214
- Glass passivated chip junction
- 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:  $260^\circ C/10$  seconds,  $0.375$  (9.5mm) lead length, 5lbs. (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 $25^\circ C$ 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 $0.375$ " (9.5mm) lead length at $T_A=25^\circ C$	$I_{F(AV)}$	1.5							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							A
Rating for fusing ( $t < 8.3ms$ )	$I^2t$	10							$A^2sec$
Typical thermal resistance per leg <sup>(1)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	36 11							$^\circ C/W$
Operating junction temperature range	$T_J$	-55 to +150							$^\circ C$
Storage temperature range	$T_{STG}$	-55 to +150							$^\circ C$

### Electrical Characteristics Ratings at $25^\circ C$ ambient temperature unless otherwise specified.

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

**Notes:** (1) Thermal resistance from junction to ambient and from junction to lead at  $0.375$ " (9.5mm) lead length P.C.B. mounting

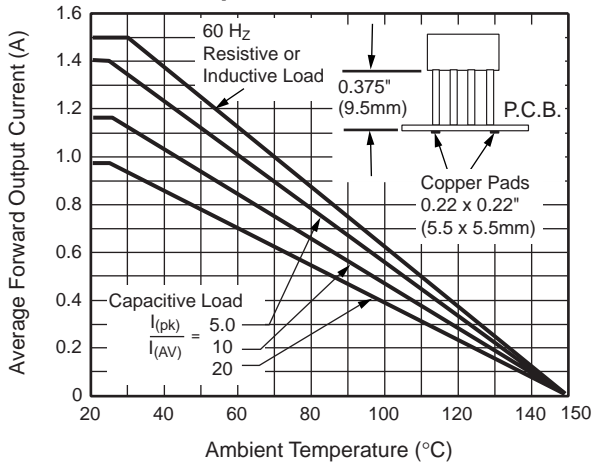
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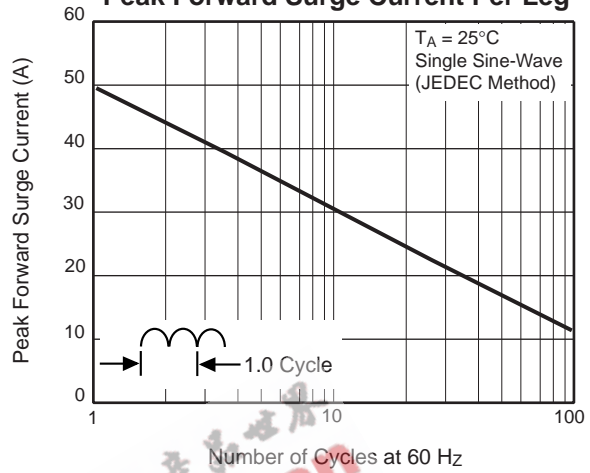


## Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

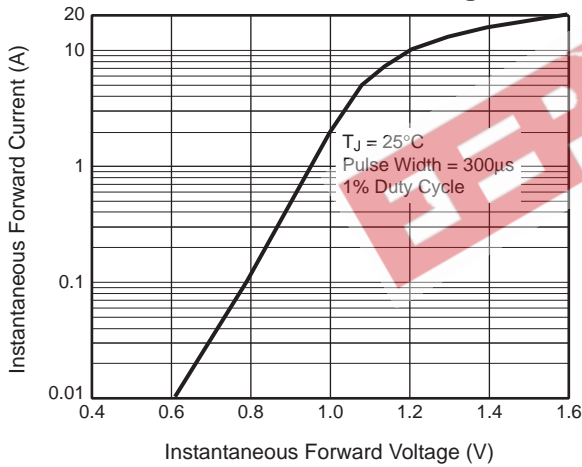
**Fig. 1 — Derating Curve Output Rectified Current**



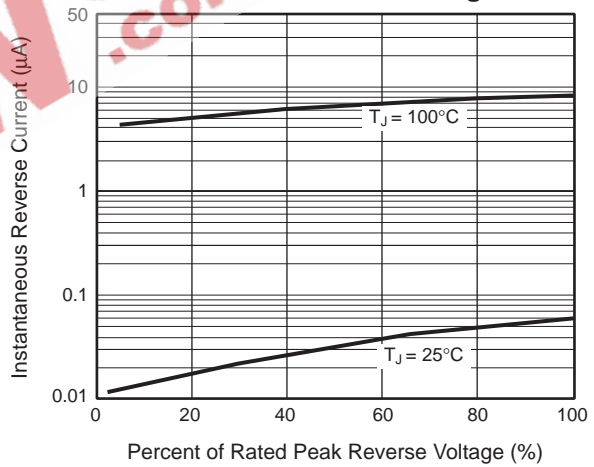
**Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



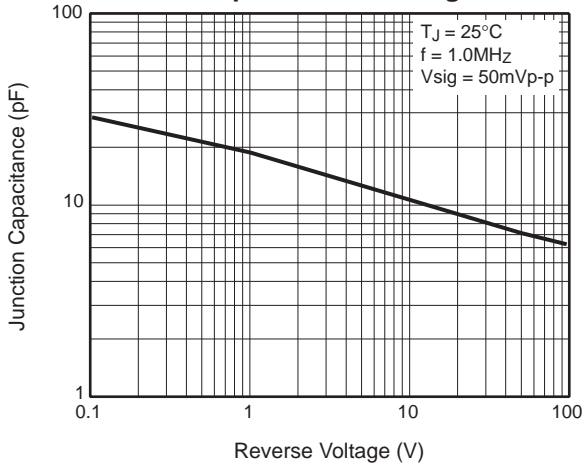
**Fig. 3 — Typical Forward Characteristics Per Leg**



**Fig. 4 — Typical Reverse Leakage Characteristics Per Leg**



**Fig. 5 — Typical Junction Capacitance Per Leg**



**Fig. 6 — Typical Transient Thermal Impedance**

