



W005G thru W10G

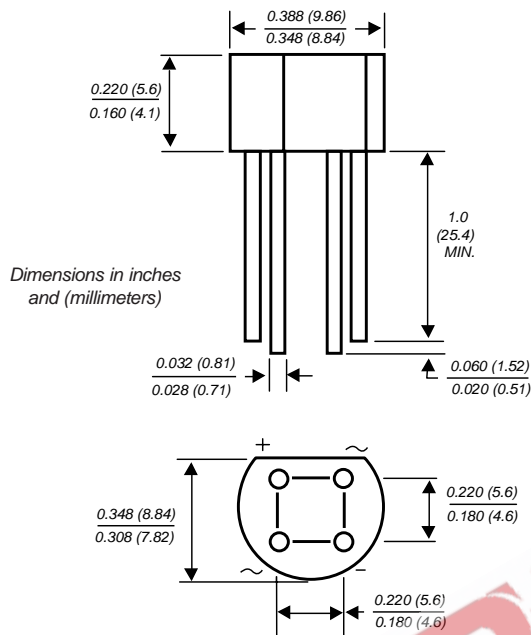
Vishay Semiconductors
formerly General Semiconductor



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 ⁽¹⁾	$R_{\theta JA}$ $R_{\theta JL}$	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							μA
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

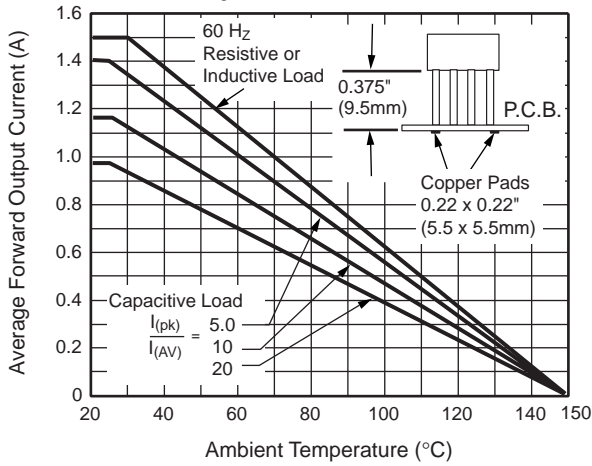


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current Per Leg

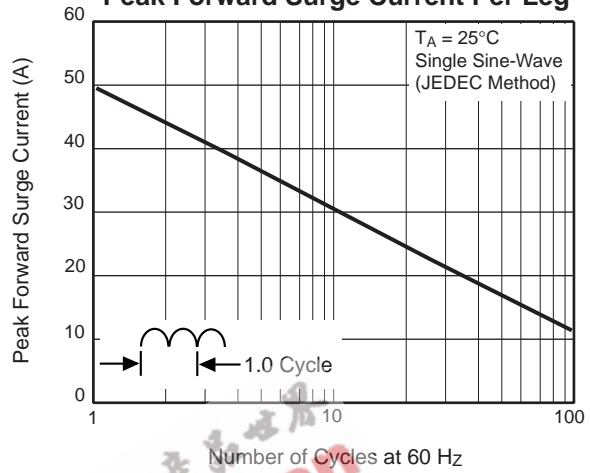


Fig. 3 — Typical Forward Characteristics Per Leg

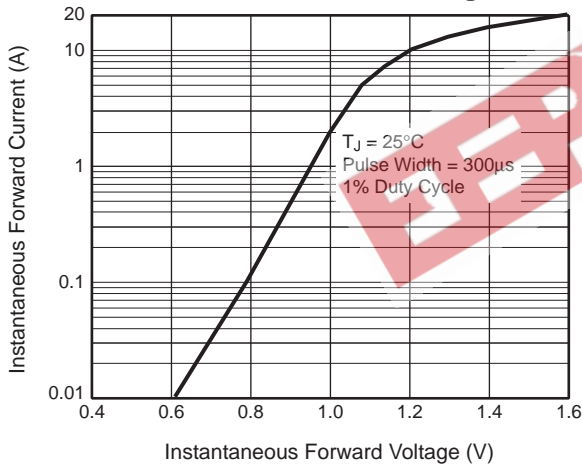


Fig. 4 — Typical Reverse Leakage Characteristics Per Leg

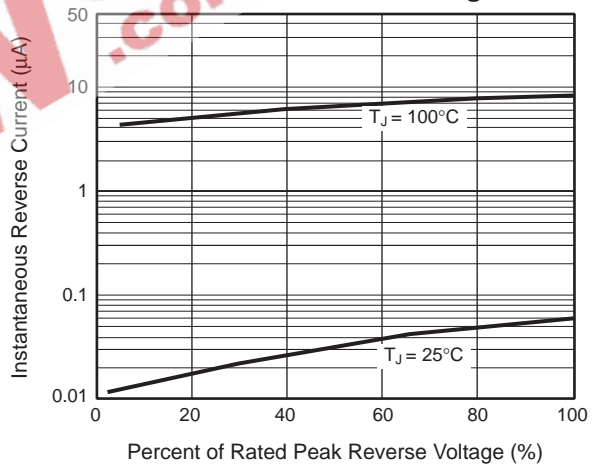


Fig. 5 — Typical Junction Capacitance Per Leg

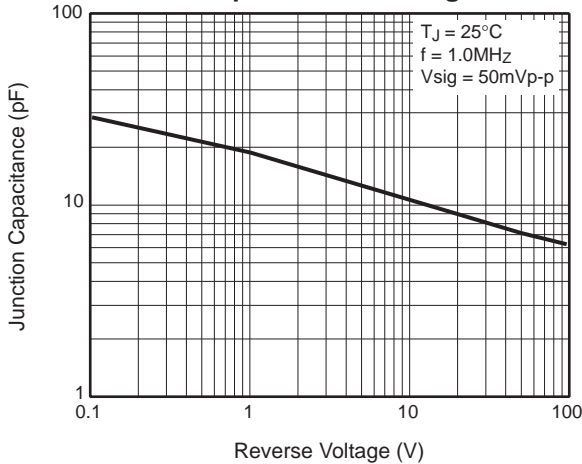


Fig. 6 — Typical Transient Thermal Impedance

