

Bridge Rectifier

W10G

1000V / 1,5A

DATASHEET

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OEM – General Semiconductor

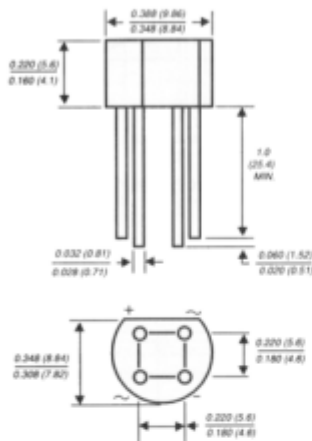
Source: General Semiconductor Databook 1998

W005G THRU W10G

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.5 Amperes

Case Style W0G



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic material has Underwriters Laboratory Flammability Recognition 94V-0
- ◆ This series is UL listed under the Recognized Component Index, file number E54214
- ◆ Glass passivated chip junctions
- ◆ High case dielectric strength
- ◆ Typical I_R less than $0.1\mu A$
- ◆ High overload surge capability
- ◆ Ideal for printed circuit boards
- ◆ High temperature soldering guaranteed:
260°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 ounce, 1.1 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | W005G | W01G | W02G | W04G | W06G | W08G | W10G | UNITS |
|---|------------------------------------|--------------|------|------|------|------|------|------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward rectified current at 0.375" (9.5mm) lead length at $T_A=25^\circ C$ | $I_{(AV)}$ | 1.5 | | | | | | | Amps |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 50.0 | | | | | | | Amps |
| Rating for fusing ($t < 8.3ms$) | I^2t | 10.0 | | | | | | | A ² sec |
| Maximum instantaneous forward voltage drop per leg at 1.0A | V_F | 1.0 | | | | | | | Volts |
| Maximum DC reverse current at rated $T_A=25^\circ C$ DC blocking voltage per leg $T_A=125^\circ C$ | I_R | 5.0 500.0 | | | | | | | μA |
| Typical junction capacitance per leg (NOTE 1) | C_J | 14.0 | | | | | | | pF |
| Typical thermal resistance per leg (NOTE 2) | $R_{\theta JA}$ $R_{\theta JL}$ | 36.0 11.0 | | | | | | | $^\circ C/W$ |
| Operating junction temperature range | T_J | -55 to +150 | | | | | | | $^\circ C$ |
| Storage temperature range | T_{STG} | -55 to +150 | | | | | | | $^\circ C$ |

NOTES:

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (2) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length P.C.B. mounting

RATINGS AND CHARACTERISTICS CURVES W005G THRU W10G

