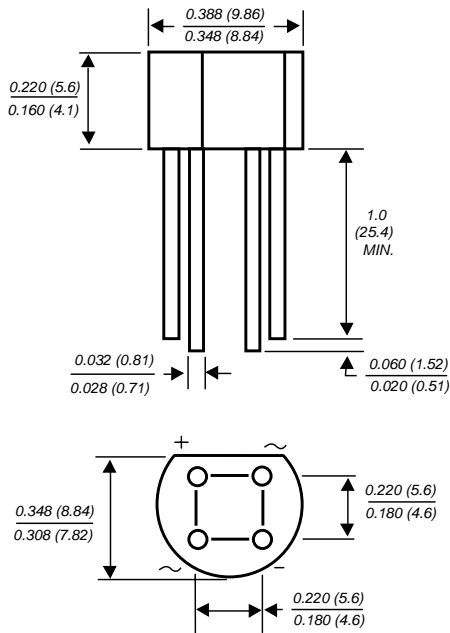


Case W0G



Dimensions in inches and (millimeters)

Glass Passivated Single Phase Bridge Rectifiers

Reverse Voltage 200 to 1000V
Forward current 1.5 Amp

Features

- Glass passivated die construction
- Ideal for printed circuit boards
- Plastic material used carries UL flammability recognition 94V-0
- High surge current capability
- High case dielectric strength of 1500 V_{RMS}

| SMSC Catalog Number | Maximum Repetitive Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|---------------------|---|---------------------|-----------------------------|
| W02G | 200V | 140V | 200V |
| W04G | 400V | 280V | 400V |
| W06G | 600V | 420V | 600V |
| W08G | 800V | 560V | 800V |
| W10G | 1000V | 700V | 1000V |

Mechanical Data

Case: Molded plastic case
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: Marked on Body
Mounting Position: Any
Weight: 0.04 oz., 1.1 g

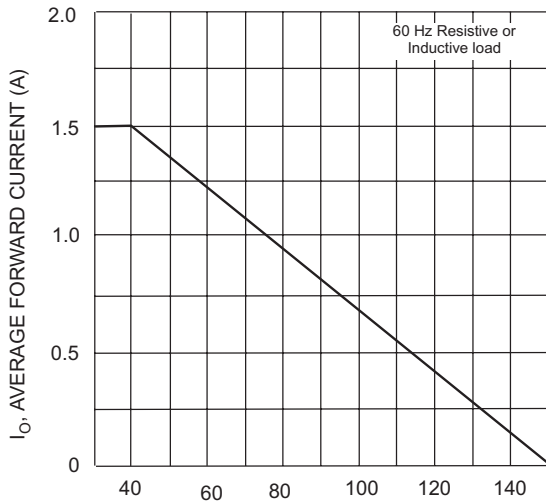
Maximum Ratings and Thermal Characteristics (TA = 25°C unless otherwise noted)

| | | | |
|--|-----------------|-------------|--------------------|
| Maximum average forward output rectified current Tc = 40°C | $I_{F(AV)}$ | 1.5 | A |
| Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 50 | A |
| Rating for fusing (t<8.3ms) | I^2t | 10 | A ² sec |
| Maximum thermal resistance per leg ⁽¹⁾ | $R_{\theta JA}$ | 36 | °C/W |
| | $R_{\theta JL}$ | 11 | |
| Operating Junction and storage temperature range | Tj, TSTG | -55 to +150 | °C |

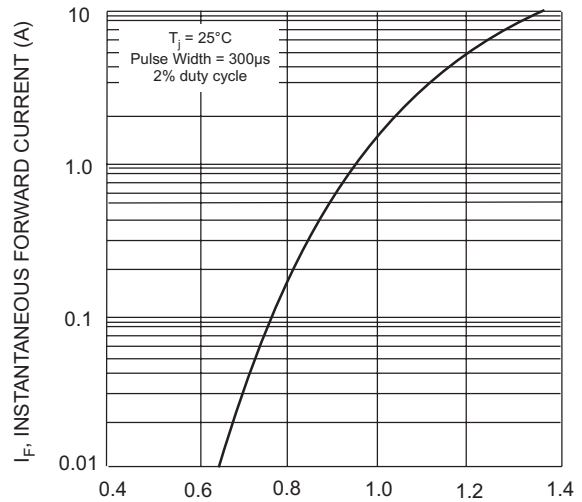
Electrical Characteristics (TA = 25°C unless otherwise noted)

| | | | |
|---|-------|-------|--------------------|
| Maximum Instantaneous Forward Voltage per leg | V_F | 1.1V | $I_{FM} = 1.0A$ |
| Maximum DC reverse current at rated DC blocking voltage per leg | I_R | 5.0μA | TA = 25°C |
| | | 500μA | TA = 125°C |
| Typical Junction Capacitance per leg | C_J | 14pF | 1.0MHz, VR=4.0V |

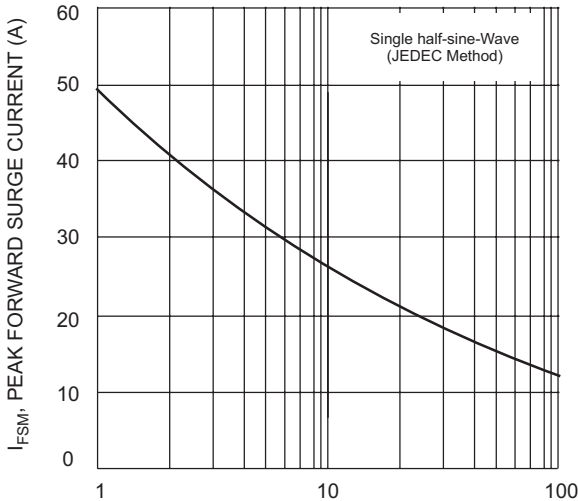
Notes: (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.47 x 0.47" (12 x 12mm) copper pads.



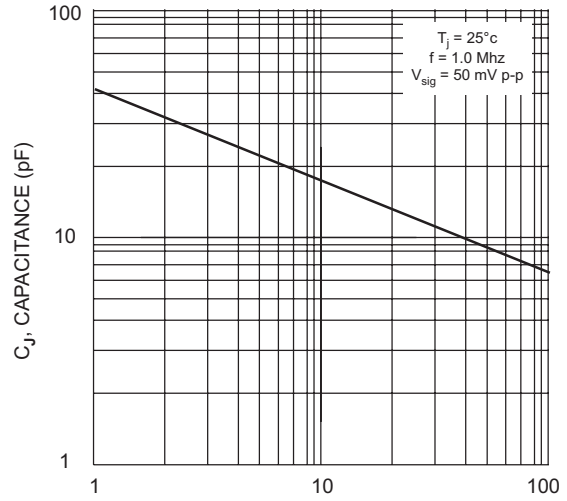
T_A , AMBIENT TEMPERATURE (°C)
 Fig. 1 Output Current Derating Curve



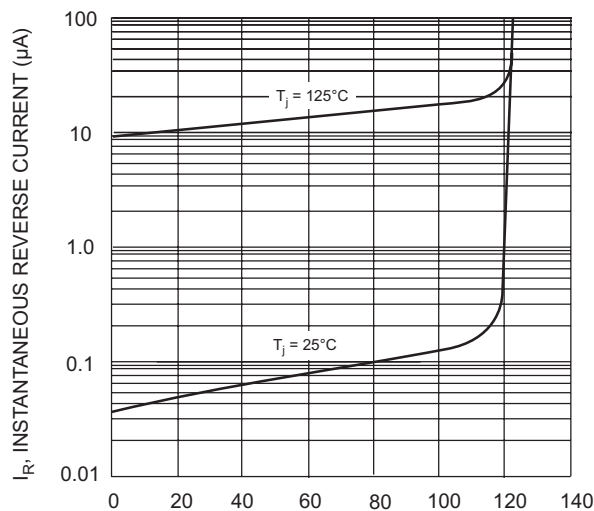
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
 Fig. 2 Typ Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz
 Fig. 3 Max Non-Repetitive Peak Forward Surge Current



V_R , REVERSE VOLTAGE (V)
 Fig. 4 Typ Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
 Fig. 5 Typ Reverse Characteristics (per element)