



2W005 THRU 2W10

SINGLE PHASE SILICON BRIDGE RECTIFIER

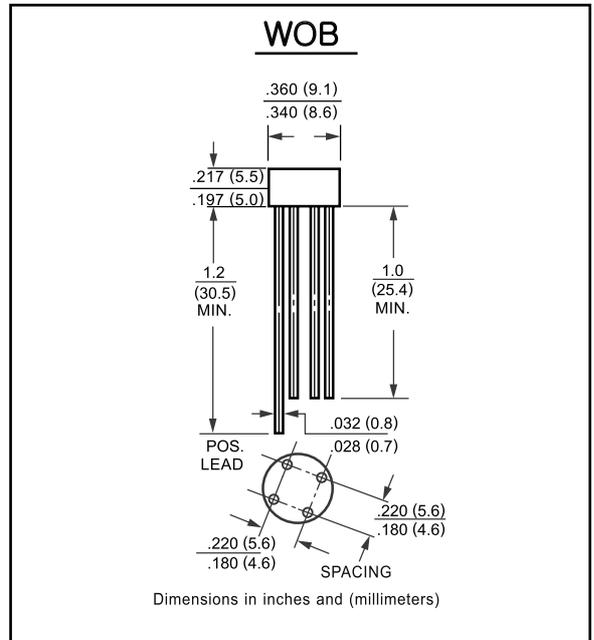
Reverse Voltage - 50 to 1000 Volts Forward Current - 2.0 Ampere

FEATURES

- Ideal for printed circuit board
- Surge overload rating: 50A peak
- High case dielectric strength

MECHANICAL DATA

- Case: UL-94 Class V-0 recognized Flame Retardant Epoxy
- Terminals: Plated leads solderable per MIL-STD 202E, method 208C
- Mounting Position: Any
- Weight: 1.10 g
- Marking: Type Number



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| CHARACTERISTICS | SYMBOL | 2W005 | 2W01 | 2W02 | 2W04 | 2W06 | 2W08 | 2W10 | UNITS |
|---|-----------------------------------|-------------------------|------|------|------|------|------|------|--------------------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Bridge Input 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 Output Current at T _A = 25°C | I _O | 2.0 | | | | | | | A |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 50 | | | | | | | A |
| Maximum DC Forward Voltage Drop per Bridge Element at 2.0A DC | V _F | 1.0 | | | | | | | V |
| Maximum Reverse Current at rated DC Blocking Voltage per element | I _R | @T _A = 25°C | | | | | | | uA |
| | | @T _A = 125°C | | | | | | | |
| I ² t Rating for Fusing (t<8.3ms) | I ² t | 10 | | | | | | | A ² Sec |
| Typical Junction Capacitance (Note1) | C _J | 24 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | R _{θJA} | 36 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to + 150 | | | | | | | °C |

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts

2. Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13x13mm) copper pads.



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RATINGS AND CHARACTERISTIC CURVES

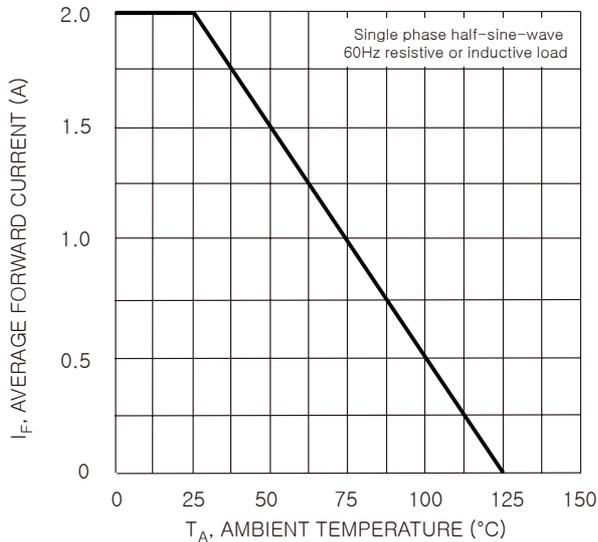


Fig. 1 Forward Current Derating Curve

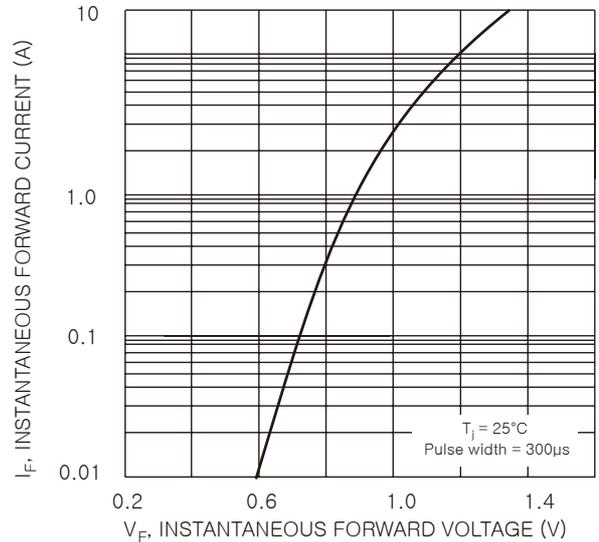


Fig. 2 Typical Forward Characteristics per element

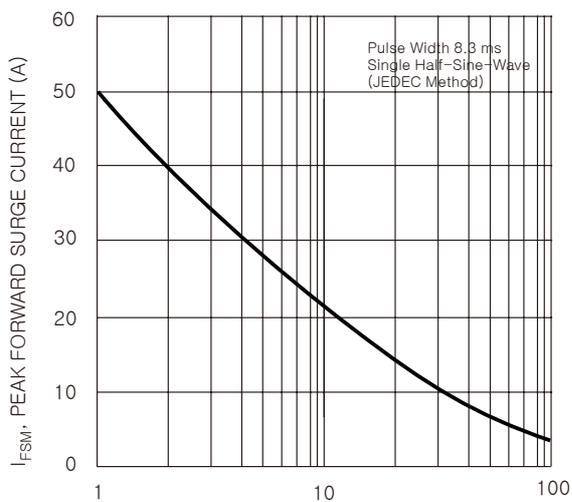


Fig. 3 Max Non-Repetitive Surge Current

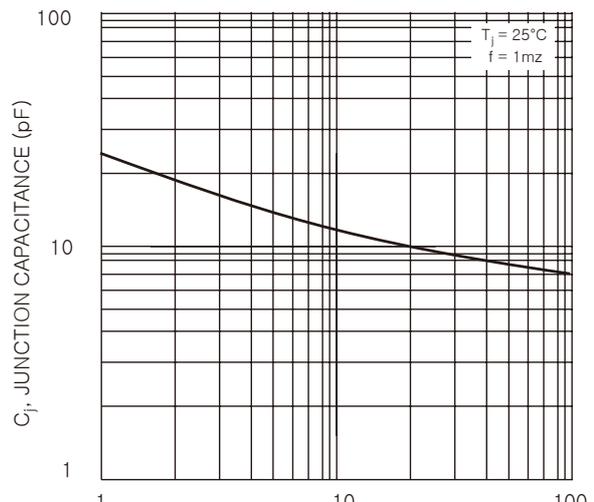


Fig. 4 Typical Junction Capacitance

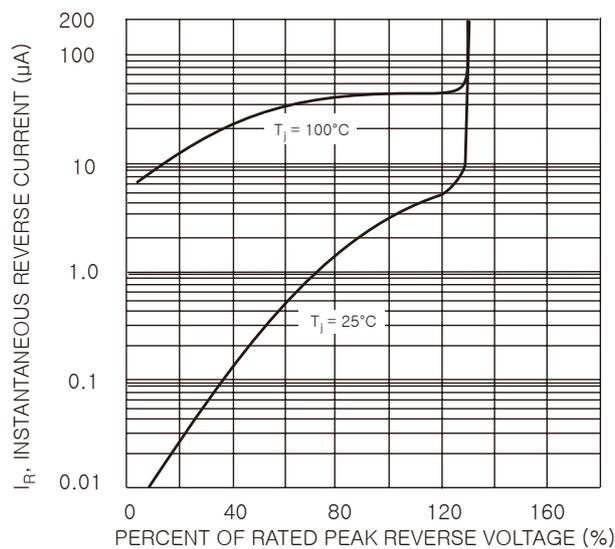


Fig. 5 Typical Reverse Characteristics