



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

W005M
THRU
W10M

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 1.5 Amperes

FEATURES

- * Surge overload ratings to 50 Amperes peak
- * Good for printed circuit board assembly

MECHANICAL DATA

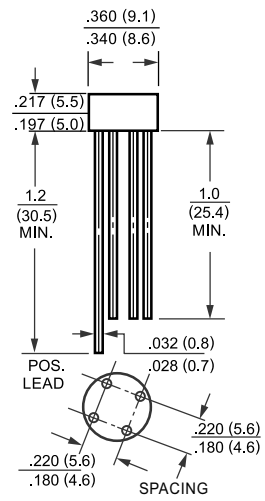
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 1.20 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



WOM



| | SYMBOL | W005M | W01M | W02M | W04M | W06M | W08M | W10M | UNITS |
|---|------------------|--------------|------|------|------|------|------|------|--------------------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Bridge Input 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 Output Current at TA = 25°C | I _O | 1.5 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 50 | | | | | | | Amps |
| Maximum Forward Voltage Drop per element at 1.0A DC | V _F | 1.0 | | | | | | | Volts |
| Maximum Reverse Current at Rated DC Blocking Voltage per element | I _R | @TA = 25°C | | | | | | | uAmps |
| | | @TA = 100°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 Temperature Range | T _J | -55 to + 125 | | | | | | | °C |
| Storage Temperature Range | 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.

RATING AND CHARACTERISTIC CURVES (W005M THRU W10M)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

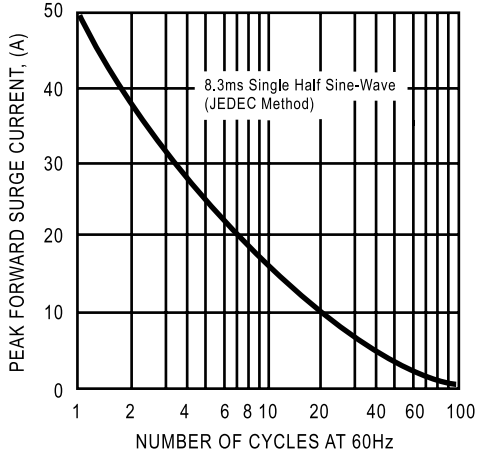


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

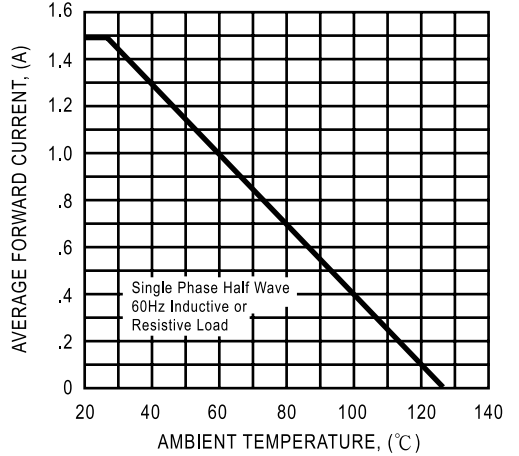


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

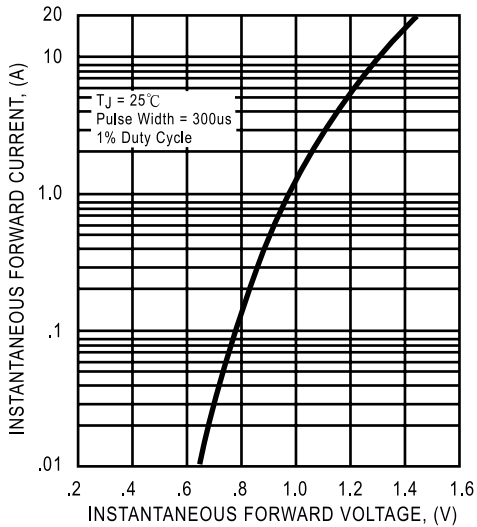


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

