

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

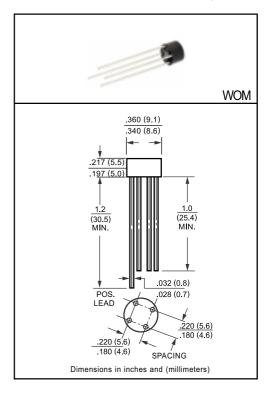
* Epoxy: UL 94V-0 rate flame retardant

* 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%.



| | | SYMBOL | W005M | W01M | W02M | W04M | W06M | W08M | W10M | UNITS |
|---|-------------|--------|--------------|------|------|------|------|------|------|--------------------|
| Maximum Recurrent Peak Reverse Voltage | | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Bridge Input Voltage | | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Output Current at TA = 25°C | | lo | 1.5 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | | IFSM | 50 | | | | | | | Amps |
| Maximum Forward Voltage Drop per element at 1.0A DC | | VF | 1.0 | | | | | | | Volts |
| Maximum Reverse Current at Rated | @TA = 25°C | lR . | 10 | | | | | | | uAmps |
| DC Blocking Voltage per element | @TA = 100°C | | 500 | | | | | | | |
| I ² t Rating for Fusing (t<8.3ms) | | l²t | 10 | | | | | | | A ² Sec |
| Typical Junction Capacitance (Note1) | | Cı | 24 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | | RθJA | 36 | | | | | | | °C/W |
| Operating Temperature Range | | TJ | -55 to + 125 | | | | | | | °C |
| Storage Temperature Range | | Tstg | -55 to + 150 | | | | | | | °C |

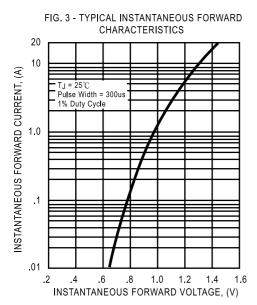
NOTES: 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts

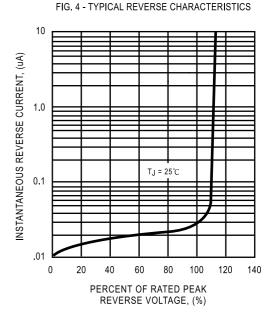
^{2.} Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13x13mm) copper pads.

RATING AND CHARACTERISTIC CURVES (W005M THRU W10M)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT 50 PEAK FORWARD SURGE CURRENT, (A) 8.3ms Single Half Sine-Wave 40 (JEDEC Method) 30 20 10 0 1 2 6 8 10 20 40 60 100 NUMBER OF CYCLES AT 60Hz

FIG. 2 - TYPICAL FORWARD CURRENT **DERATING CURVE** 1.6 AVERAGE FORWARD CURRENT, (A) 1.4 1.2 1.0 .8 .6 Single Phase Half Wave .4 60Hz Inductive or Resistive Load .2 0 20 120 40 60 80 100 140 AMBIENT TEMPERATURE, (°C)







DC COMPONENTS CO., LTD.

Copyright © Each Manufacturing Company.

All Datasheets cannot be modified without permission.

This datasheet has been download from:

www.AllDataSheet.com

100% Free DataSheet Search Site.

Free Download.

No Register.

Fast Search System.

www.AllDataSheet.com