



1W005 THRU 1W10

Single Phase 1.0 AMP. Silicon Bridge Rectifiers

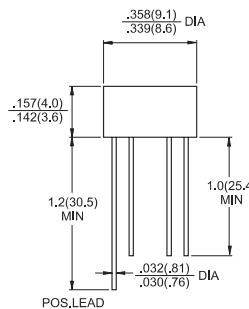


Voltage Range
50 to 1000 Volts
Current
1.0 Ampere

Features

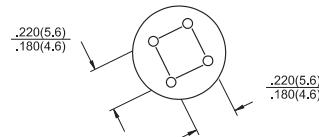
- ◊ UL Recognized File # E-96005
- ◊ Surge overload ratings to 30 amperes peak
- ◊ Ideal for printed circuit board
- ◊ Reliable low cost construction technique results in inexpensive product
- ◊ High temperature soldering guaranteed: 260°C / 10 seconds / 0.375" (9.5mm) lead length at 5 lbs., (2.3 kg) tension

RB-15



Mechanical Data

- ◊ Case: Molded plastic
- ◊ Lead: solder plated
- ◊ Polarity: As marked
- ◊ Weight: 1.07 grams



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating 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%

| Type Number | Symbol | 1W005 | 1W01 | 1W02 | 1W04 | 1W06 | 1W08 | 1W10 | Units |
|--|--------------------------------------|-------|------|------|-------------|------|------|------|-------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS 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 Rectified Current @ T _A = 50°C | I _(AV) | | | | 1.0 | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I _{FSM} | | | | 30 | | | | A |
| Maximum Instantaneous Forward Voltage @ 1.0A | V _F | | | | 1.0 | | | | V |
| Maximum DC Reverse Current @ T _A =25°C at Rated DC Blocking Voltage @ T _A =100°C | I _R | | | | 10 | | | | uA |
| | | | | | 500 | | | | uA |
| Typical Thermal resistance (Note) | R _{θJA} R _{θJL} | | | | 36 | | | | °C/W |
| | | | | | 13 | | | | |
| Operating Temperature Range | T _J | | | | -55 to +125 | | | | °C |
| Storage Temperature Range | T _{STG} | | | | -55 to +150 | | | | °C |

Note: 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.

RATINGS AND CHARACTERISTIC CURVES (1W005 THRU 1W10)

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

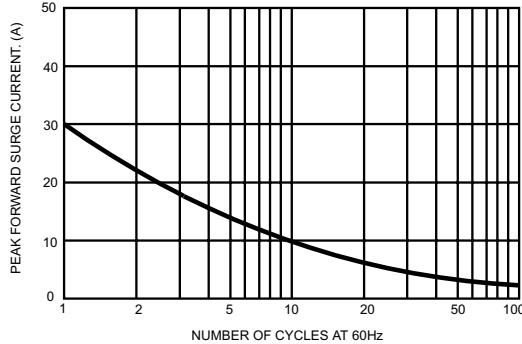


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

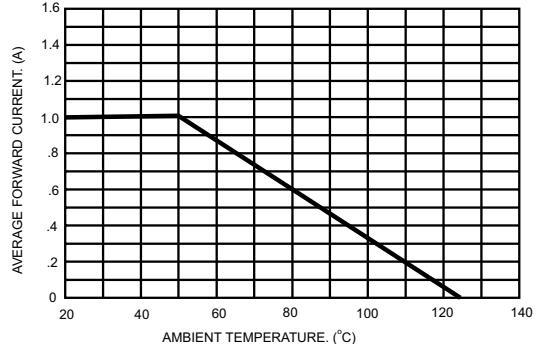


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

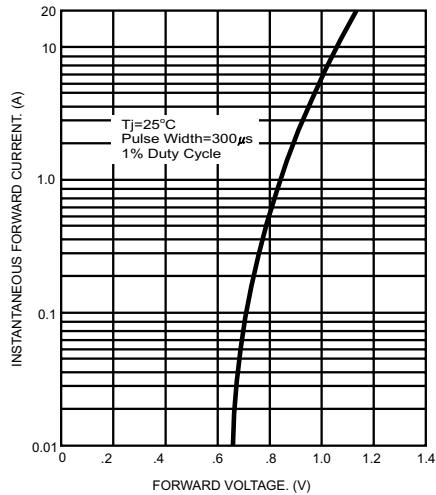


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

