

**SILICON RECTIFIER**

**VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere**

**FEATURES**

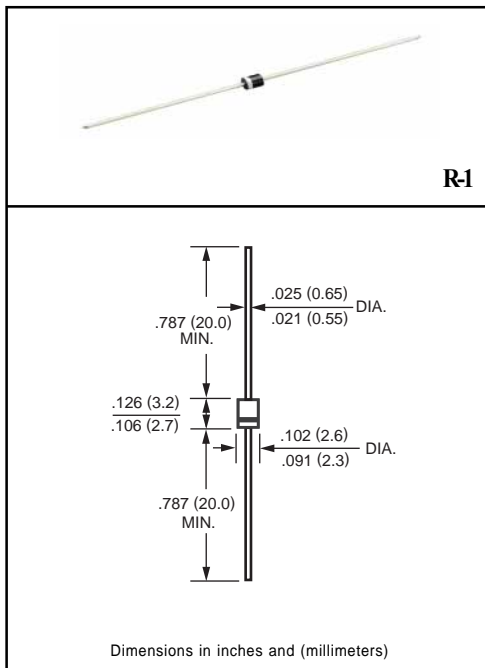
- \* High reliability
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability

**MECHANICAL DATA**

- \* Case: Molded plastic black body
- \* Epoxy: Device has UL flammability classification 94V-0
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.19 gram

**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%.



**MAXIMUM RATINGS** (At TA = 25°C unless otherwise noted)

| RATINGS   | SYMBOL   | 1A1          | 1A2 | 1A3 | 1A4 | 1A5 | 1A6 | 1A7  | UNITS |
|---|----------|--------------|-----|-----|-----|-----|-----|------|-------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM     | 50           | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS 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 Current at TA = 25°C  | IO       | 1.0          |     |     |     |     |     |      | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM     | 25           |     |     |     |     |     |      | Amps  |
| Typical Junction Capacitance (Note)   | CJ       | 15           |     |     |     |     |     |      | pF    |
| Typical Thermal Resistance  | RθJA     | 60           |     |     |     |     |     |      | °C/W  |
| Operating and Storage Temperature Range   | TJ, TSTG | -55 to + 150 |     |     |     |     |     |      | °C    |

**ELECTRICAL CHARACTERISTICS** (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS   | SYMBOL       | 1A1 | 1A2 | 1A3 | 1A4 | 1A5 | 1A6 | 1A7 | UNITS |
|---|--------------|-----|-----|-----|-----|-----|-----|-----|-------|
| Maximum Instantaneous Forward Voltage at 1.0A DC  | VF           | 1.1 |     |     |     |     |     |     | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage                                     | @ TA = 25°C  | 5.0 |     |     |     |     |     |     | uAmps |
|   | @ TA = 100°C | 50  |     |     |     |     |     |     |       |
| Maximum Full Load Reverse Current Full Cycle Average .375" (9.5mm) lead length at TL = 75°C | IR           | 100 |     |     |     |     |     |     | uAmps |

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

# RATING AND CHARACTERISTIC CURVES ( 1A1 THRU 1A7 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

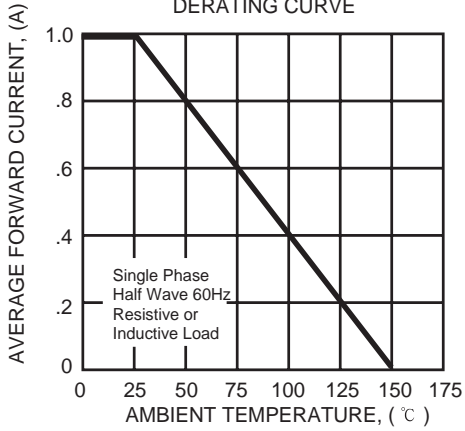


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

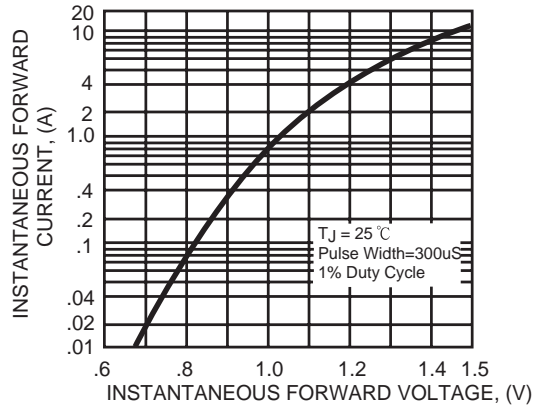


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

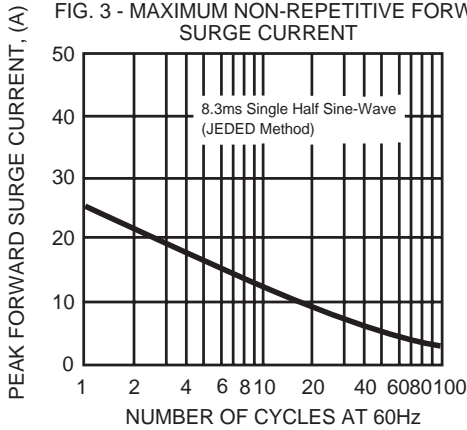


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

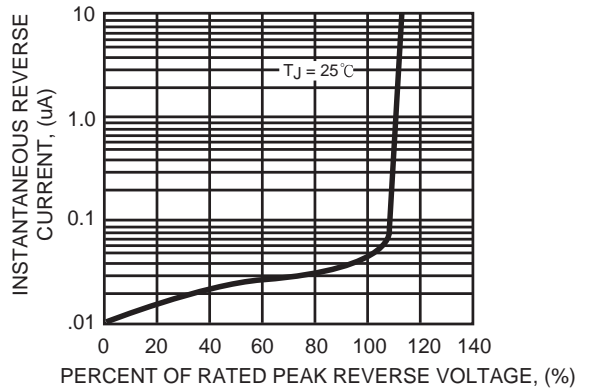


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

