



1N5391 THRU 1N5399

1.5 AMPS. SILICON RECTIFIERS

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.5 Amperes

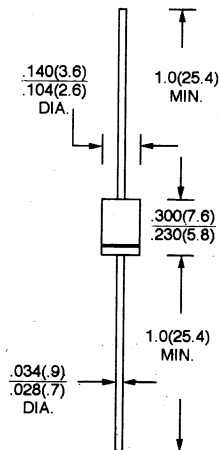
FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting Position: Any
- * Weight: 0.40 grams

DO-15



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 | SYMBOLS | 1N 5391 | 1N 5392 | 1N 5393 | 1N 5395 | 1N 5397 | 1N 5398 | 1N 5399 | 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 D. C Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current .375" (9.5mm) lead length @ $T_A = 75^\circ\text{C}$ | $I_{F(AV)}$ | 1.5 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method) | I_{FSM} | 50 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 1.5A | V_F | 1.0 | | | | | | | V |
| Maximum D. C Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated D. C Blocking Voltage @ $T_A = 100^\circ\text{C}$ | I_R | 5.0 50.0 | | | | | | | μA μA |
| Typical Junction Capacitance (Note 1) | C_J | 30 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 50 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating Temperature Range | T_J | - 65 to + 125 | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | - 65 to + 150 | | | | | | | $^\circ\text{C}$ |

- NOTES: 1. Measured at 1 MHz and applied reverse voltage of 4.0V D. C.
2. Thermal Resistance from Junction to Ambient 0.375"(9.5mm) Lead Length.

RATINGS AND CHARACTERISTIC CURVES (1N5391 THRU 1N5399)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

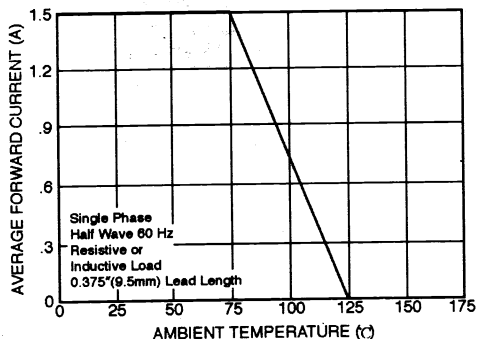


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

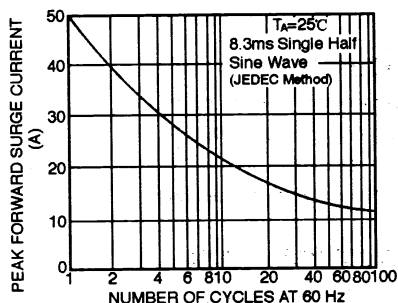


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

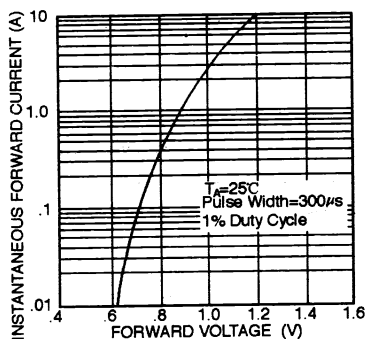


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

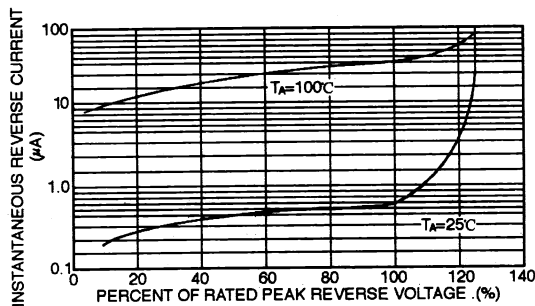


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

