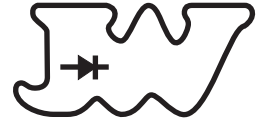


# 1N5391 THRU 1N5399

1.5 AMP SILICON RECTIFIERS



## 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

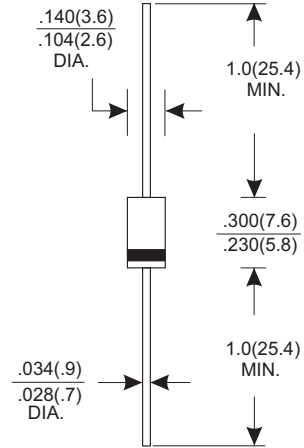
## VOLTAGE RANGE

50 to 1000 Volts

## CURRENT

1.5 Amperes

DO-15



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| TYPE NUMBER                                                                                           | 1N5391     | 1N5392 | 1N5393 | 1N5395 | 1N5397 | 1N5398 | 1N5399 | UNITS |
|-------------------------------------------------------------------------------------------------------|------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                | 50         | 100    | 200    | 400    | 600    | 800    | 1000   | V     |
| Maximum RMS Voltage                                                                                   | 35         | 70     | 140    | 280    | 420    | 560    | 700    | V     |
| Maximum DC Blocking Voltage                                                                           | 50         | 100    | 200    | 400    | 600    | 800    | 1000   | V     |
| Maximum Average Forward Rectified Current<br>.375"(9.5mm) Lead Length at Ta=50°C                      | 1.5        |        |        |        |        |        |        | A     |
| Peak Forward Surge Current, 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | 50         |        |        |        |        |        |        | A     |
| Maximum Instantaneous Forward Voltage at 1.5A                                                         | 1.0        |        |        |        |        |        |        | V     |
| Maximum DC Reverse Current Ta=25°C                                                                    | 5.0        |        |        |        |        |        |        | μA    |
| at Rated DC Blocking Voltage Ta=100°C                                                                 | 50         |        |        |        |        |        |        | μA    |
| Typical Junction Capacitance (Note 1)                                                                 | 20         |        |        |        |        |        |        | pF    |
| Typical Thermal Resistance R JA (Note 2)                                                              | 50         |        |        |        |        |        |        | °C/W  |
| Operating and Storage Temperature Range Tj, Tstg                                                      | -65 — +175 |        |        |        |        |        |        | °C    |

### NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance from Junction to Ambient .375" (9.5mm) lead length.

## RATING AND CHARACTERISTIC CURVES (1N5391 THRU 1N5399)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

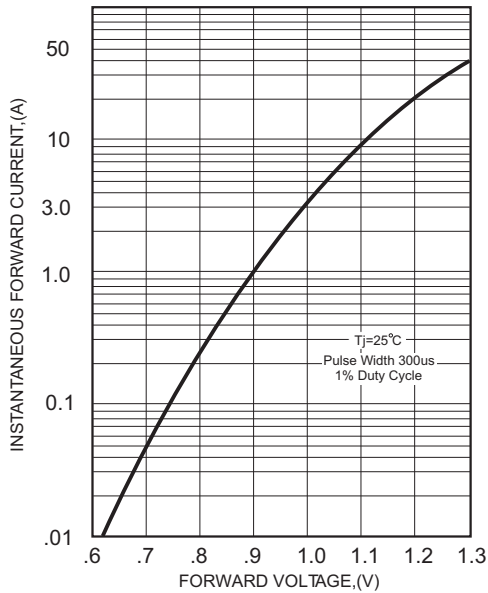


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

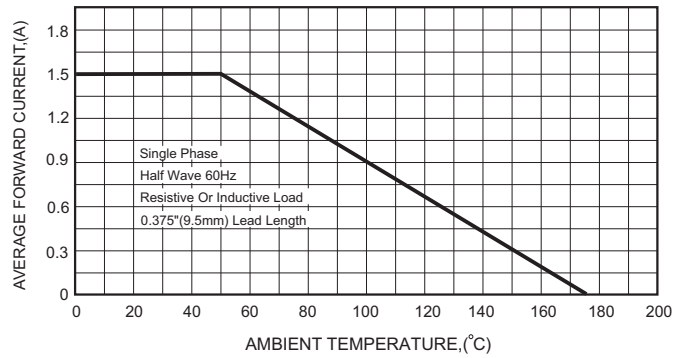


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

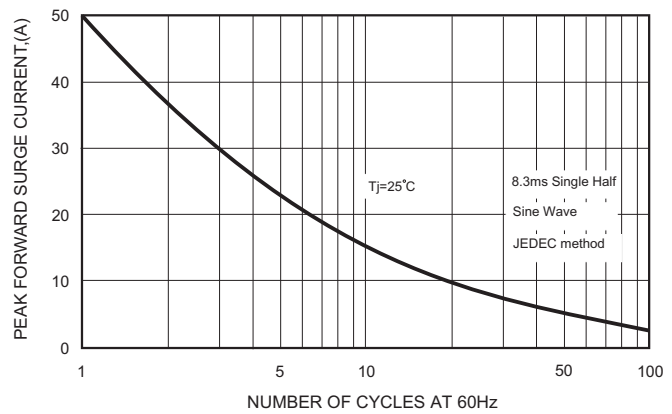


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

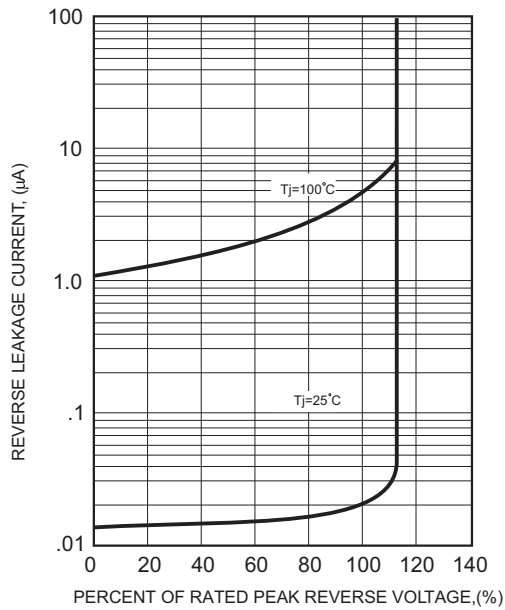


FIG.5-TYPICAL JUNCTION CAPACITANCE

