

# 1N5391 THRU 1N5399

# FMS

## 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 guranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.40 grams

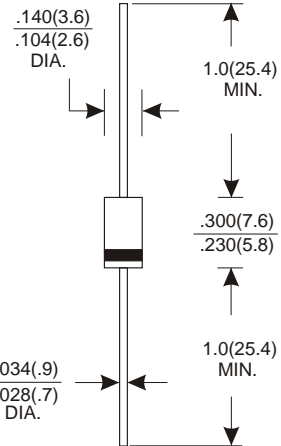
### VOLTAGE RANGE

50 to 1000 Volts

### CURRENT

1.5 Amperes

DO-15



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unieess otherwies 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  |        |        |        |        |        |        |        |            |      |
| .375" (9.5mm) Lead Length at Ta=50°C   |        |        |        |        |        |        |        | 1.5        | A    |
| Peak Forward Surge Current, 8.3 ms single half sine-wave 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        | mA   |
| at Rated DC Blocking Voltage Ta=100°C  |        |        |        |        |        |        |        | 50         | mA   |
| Typical Junction Capacitance (Note 1)  |        |        |        |        |        |        |        | 20         | pF   |
| Typical Thermal Resistance RqJA (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

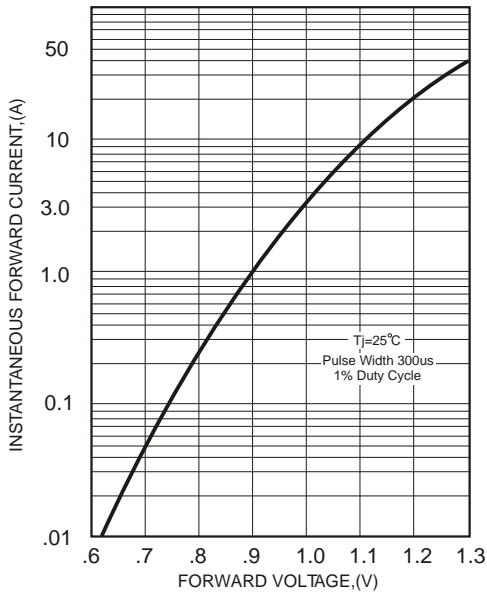


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

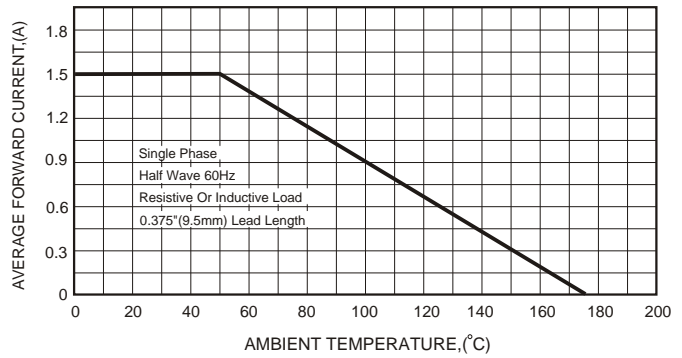


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

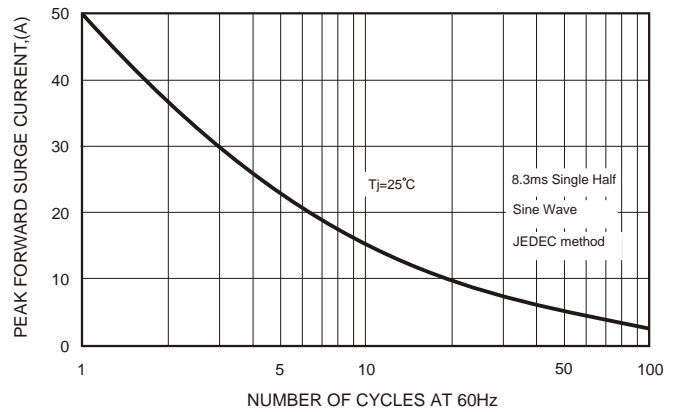


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

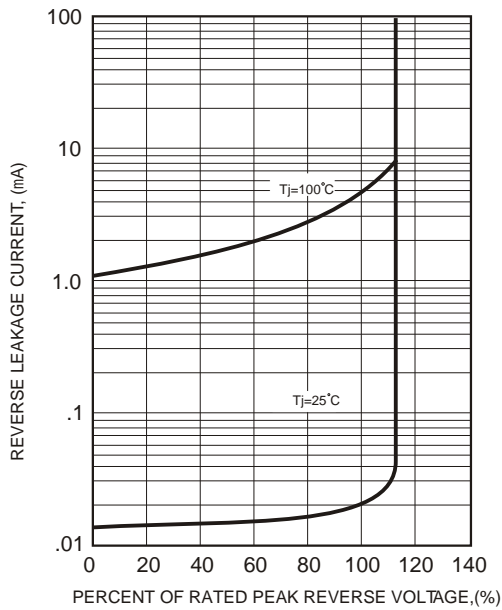


FIG.5-TYPICAL JUNCTION CAPACITANCE

