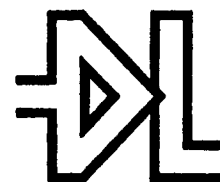


# DIODES LIMITED IN5391 TO IN5399 SERIES

FAIRACRES ESTATE, DEDWORTH ROAD,  
WINDSOR, BERKSHIRE.  
Telephone: WINDSOR 69571 Telex: 847255



SEMICONDUCTOR  
MANUFACTURERS

## 1.5 AMPERE SILICON RECTIFIERS With "LOCKED-IN" Reliability

### FEATURES

- High Conductance Leads
- Advanced Surface Passivation
- Low-Noise Operation
- Superior Rectification Efficiency
- High Temperature Solder
- Avalanche Characteristics
- "Locked-in Reliability"

### ELECTRICAL SPECIFICATIONS

| Type No.  | 1N5931              | 1N5392 | 1N5393 | 1N5395 | 1N5397 | 1N5398 | 1N5399 |
|---|---------------------|--------|--------|--------|--------|--------|--------|
| Max. Peak Inverse Volts                         | 50                  | 100    | 200    | 400    | 600    | 800    | 1000   |
| *Max. RMS Supply Volts                          | 35                  | 70     | 140    | 280    | 420    | 560    | 700    |
| Maximum Forward Voltage @ 1.5 Ampere, DC @ 75°C | 1.1 Volts, Peak     |        |        |        |        |        |        |
| Maximum Reverse DC Current @ PIV @ 25°C         | 10 $\mu$ A          |        |        |        |        |        |        |
| Maximum Dynamic Reverse Current @ PIV @ 75°C    | 30 $\mu$ A, Average |        |        |        |        |        |        |

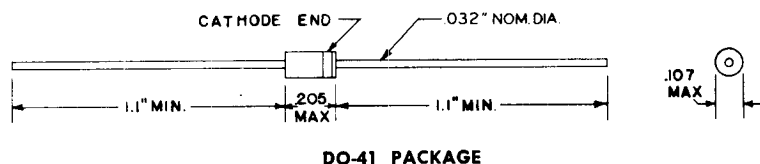
|   |                  |
|---|------------------|
| Average Rectified Forward Current @ 75°C  | * 1.5 Ampere     |
| Average Rectified Forward Current @ 100°C | * 1 Ampere       |
| Recurrent Peak Current @ 75°C             | 12 Amperes       |
| One Cycle Surge @ 75°C                    | 50 Amperes, Peak |
| Storage Temperature Range                 | —65 to 200°C     |
| Operating Temperature Range               | —65 to 175°C     |

All temperatures are ambient

\*Resistive or Inductive Load

### MECHANICAL DIMENSIONS

Notice: To protect the device from excess soldering temperature, hold the lead wire with the tips of long nose plier (heat sink) between the soldering point and the case.



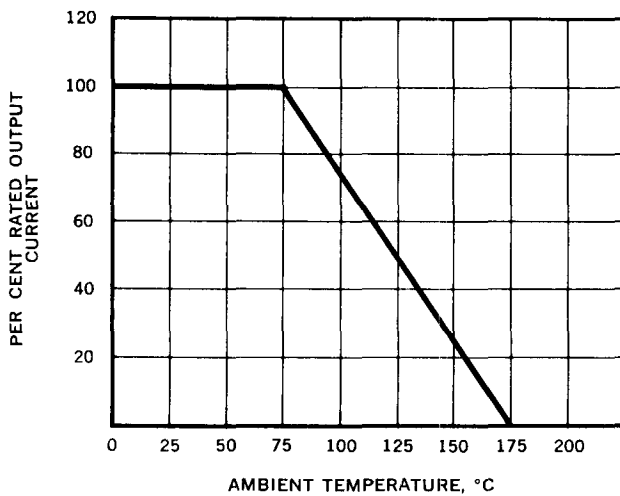
DO-41 PACKAGE

1N5391-1N5399  
SERIES RECTIFIERS

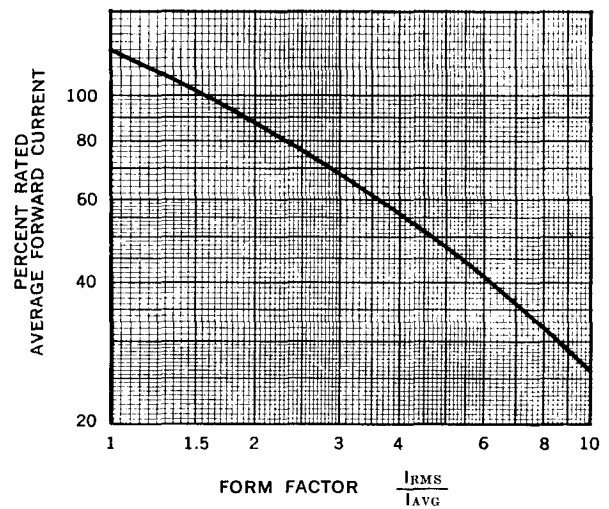
1N5391-1N5399  
 SERIES RECTIFIERS  
**1.5 AMPERE**  
**50 TO 1000 VOLTS**  
**SINGLE JUNCTION**

**DERATING CURVES**

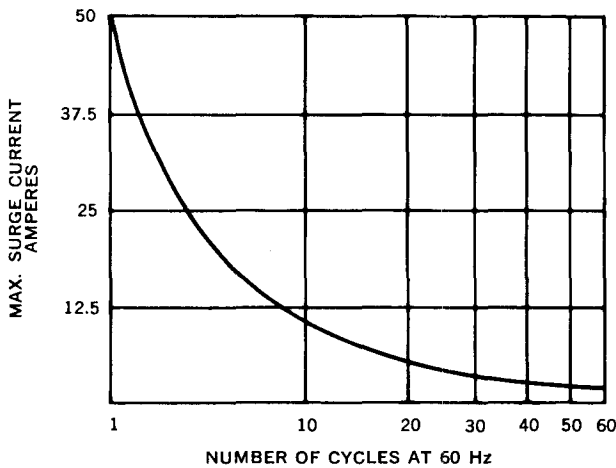
**FIGURE 1**



**FIGURE 2**



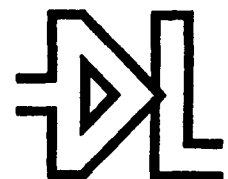
**FIGURE 3**



**NOTE 1:** The derating curve of Figure 1 is applicable only when each diode lead is attached to a heat sink of minimum one square inch surface area at a distance of 0.5 inch from the diode body. This heat sink configuration equals a thermal resistance of approximately 50°C/Watt (junction to ambient), which is a typical condition found in circuit assemblies where the rectifier is mounted on terminals or terminal boards together with associated wiring.

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