

**PLASTIC SILICON RECTIFIERS**

REVERSE VOLTAGE - **50 to 1000** Volts  
 FORWARD CURRENT - **1.5** Amperes

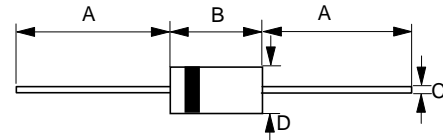
**FEATURES**

- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carries UL recognition 94V-0

**MECHANICAL DATA**

- Case : JEDEC DO-15 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.015 ounces, 0.4 grams
- Mounting position : Any

**DO-15**



| DO-15                        |                    |                    |
|------------------------------|--------------------|--------------------|
| Dim.                         | Min.               | Max.               |
| A                            | 25.4               | -                  |
| B                            | 5.80               | 7.60               |
| C                            | 0.71 $\varnothing$ | 0.86 $\varnothing$ |
| D                            | 2.60 $\varnothing$ | 3.60 $\varnothing$ |
| All Dimensions in millimeter |                    |                    |

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

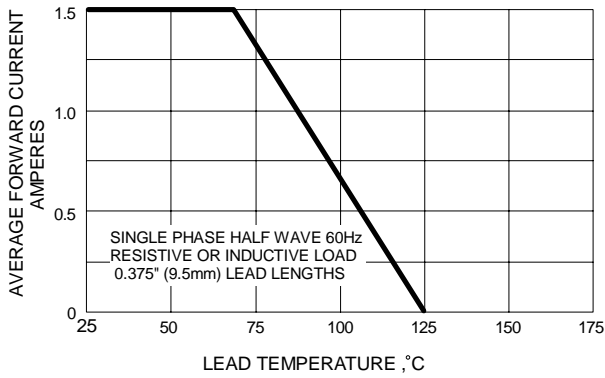
Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%

| CHARACTERISTICS   | SYMBOL           | 1N 5391     | 1N 5392 | 1N 5393 | 1N 5394 | 1N 5395 | 1N 5396 | 1N 5397 | 1N 5398 | 1N 5399 | UNIT |
|---|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|------|
| Maximum Recurrent Peak Reverse Voltage  | V <sub>RRM</sub> | 50          | 100     | 200     | 300     | 400     | 500     | 600     | 800     | 1000    | V    |
| Maximum RMS Voltage   | V <sub>RMS</sub> | 35          | 70      | 140     | 210     | 280     | 350     | 420     | 560     | 700     | V    |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>  | 50          | 100     | 200     | 300     | 400     | 500     | 600     | 800     | 1000    | V    |
| Maximum Average Forward Rectified Current<br>.375"(9.5mm) Lead Lengths<br>@T <sub>L</sub> =70°C               | I <sub>AV</sub>  | 1.5         |         |         |         |         |         |         |         |         | A    |
| Peak Forward Surge Current<br>8.3ms single half sine-wave<br>super imposed on rated load (JEDEC Method)       | I <sub>FSM</sub> | 50          |         |         |         |         |         |         |         |         | A    |
| Maximum forward Voltage at 1.5A DC  | V <sub>F</sub>   | 1.1         |         |         |         |         |         |         |         |         | V    |
| Maximum DC Reverse Current<br>at Rated DC Blocking Voltage<br>@T <sub>J</sub> =25°C<br>@T <sub>J</sub> =100°C | I <sub>R</sub>   | 5.0<br>50   |         |         |         |         |         |         |         |         | uA   |
| Typical Junction Capacitance (Note 1)   | C <sub>J</sub>   | 20          |         |         |         |         |         |         |         |         | pF   |
| Typical Thermal Resistance (Note 2)   | R <sub>θJL</sub> | 26          |         |         |         |         |         |         |         |         | °C/W |
| Operating Temperature Range   | T <sub>J</sub>   | -55 to +125 |         |         |         |         |         |         |         |         | °C   |
| Storage Temperature Range   | T <sub>STG</sub> | -55 to +150 |         |         |         |         |         |         |         |         | °C   |

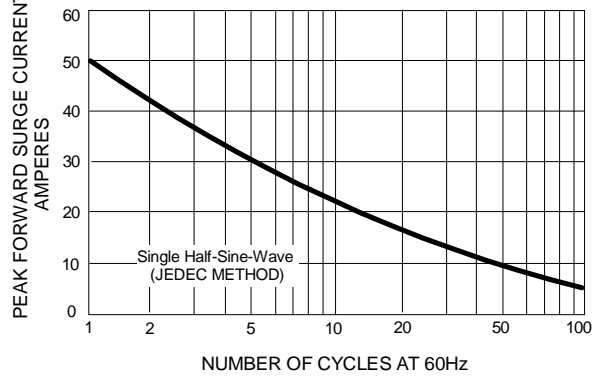
NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
 2.Thermal Resistance Junction to Lead .

REV. 2, 01-Dec-2000, KDAD01

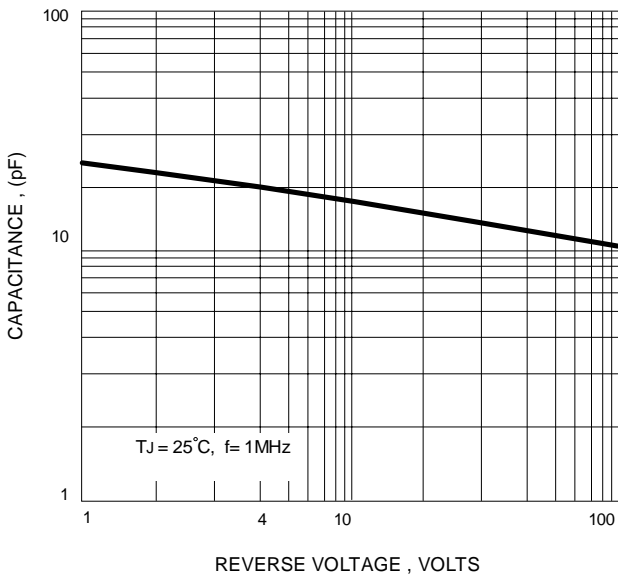
**FIG.1 - FORWARD CURRENT DERATING CURVE**



**FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 - TYPICAL JUNCTION CAPACITANCE**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**

