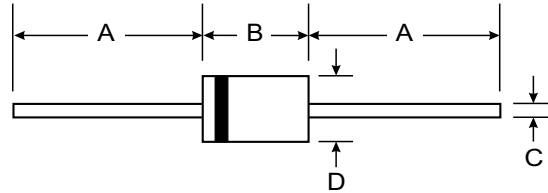


### Features

- Diffused Junction
- Fast Switching for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Low Reverse Leakage Current
- Surge Overload Rating to 50A Peak
- Plastic Material - UL Flammability Classification Rating 94V-0



### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: DO-41 0.30 grams (approx.)  
DO-15 0.40 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

| Dim | DO-41 Plastic |       | DO-15 |       |
|-----|---------------|-------|-------|-------|
|     | Min           | Max   | Min   | Max   |
| A   | 25.40         | —     | 25.40 | —     |
| B   | 4.06          | 5.21  | 5.50  | 7.62  |
| C   | 0.71          | 0.864 | 0.686 | 0.889 |
| D   | 2.00          | 2.72  | 2.60  | 3.60  |

**All Dimensions in mm**

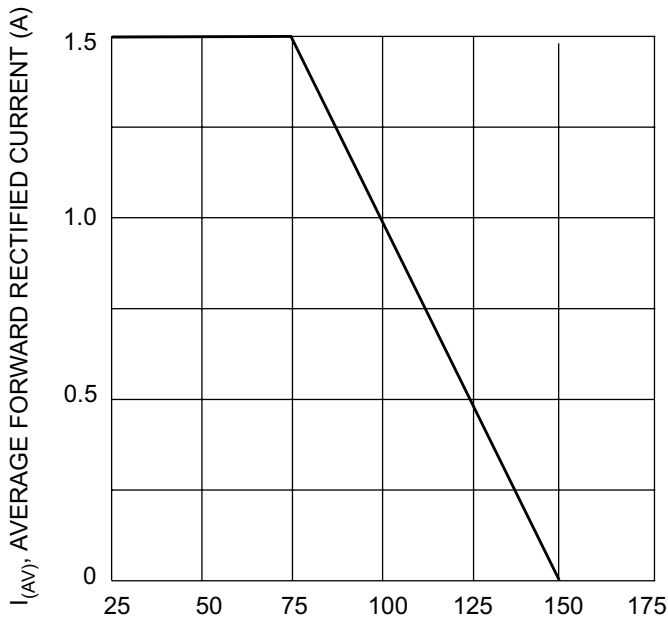
“S” Suffix Designates DO-41 Package  
No Suffix Designates DO-15 Package

### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

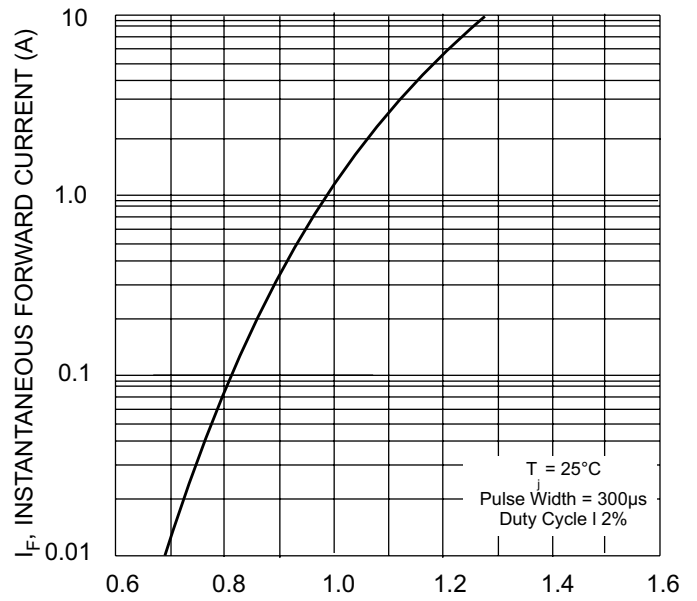
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Characteristic  | Symbol   | 1N 5391/S   | 1N 5392/S | 1N 5393/S | 1N 5395/S | 1N 5397/S | 1N 5398/S | 1N 5399/S | Unit |
|---|--|-------------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 50          | 100       | 200       | 400       | 600       | 800       | 1000      | V    |
| RMS Reverse Voltage   | V <sub>R(RMS)</sub>                                    | 35          | 70        | 140       | 280       | 420       | 560       | 700       | V    |
| Average Rectified Output Current<br>(Note 1) @ T <sub>A</sub> = 70°C  | I <sub>o</sub>   | 1.5         |           |           |           |           |           |           | A    |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>single half sine-wave superimposed on rated load<br>(JEDEC Method) | I <sub>FSM</sub>                                       | 50          |           |           |           |           |           |           | A    |
| Forward Voltage Drop @ I <sub>F</sub> = 1.5A  | V <sub>FM</sub>  | 1.1         |           |           |           |           |           |           | V    |
| Peak Reverse Leakage Current @ T <sub>A</sub> = 25°C<br>at Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C         | I <sub>RM</sub>  | 5.0<br>50   |           |           |           |           |           |           | μA   |
| Typical Junction Capacitance (Note 2)   | C <sub>j</sub>   | 20          |           |           |           |           |           |           | pF   |
| Typical Thermal Resistance Junction to Lead   | R <sub>θJL</sub>                                       | 25          |           |           |           |           |           |           | K/W  |
| Typical Thermal Resistance Junction to Ambient (Note 1)   | R <sub>θJA</sub>                                       | 55          |           |           |           |           |           |           | K/W  |
| Operating and Storage Temperature Range   | T <sub>j</sub> , T <sub>STG</sub>                      | -65 to +150 |           |           |           |           |           |           | °C   |

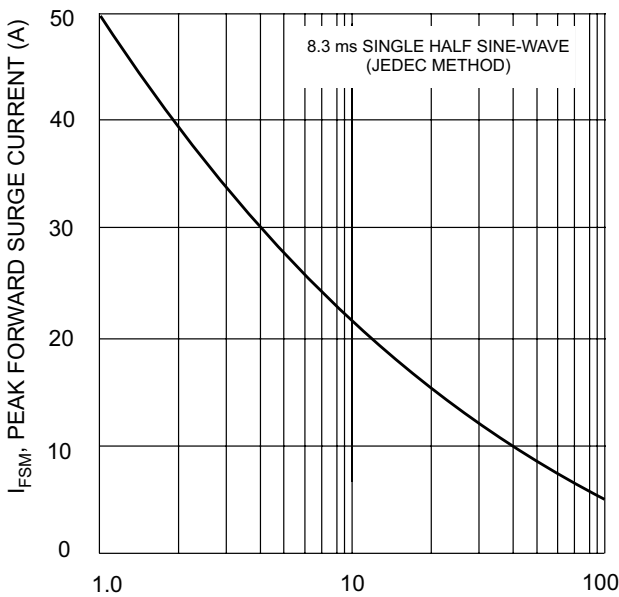
- Notes: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.  
2. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V DC.



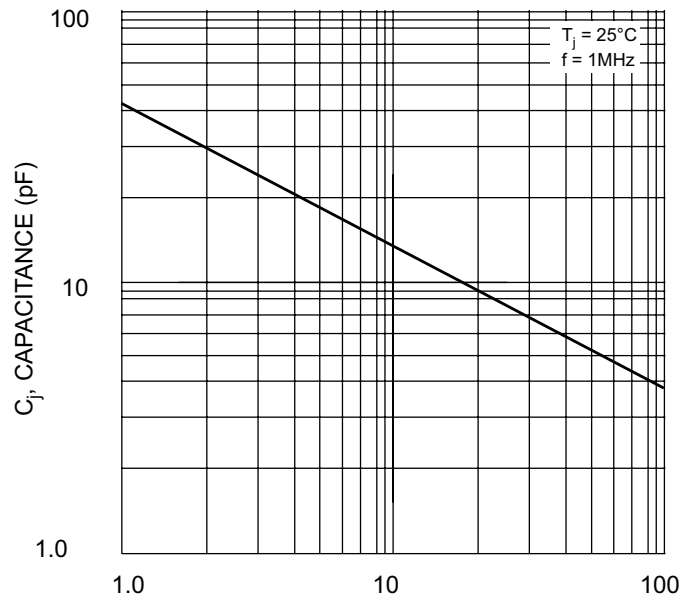
$T_A$  AMBIENT TEMPERATURE (°C)  
Fig. 1, Forward Current Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60Hz  
Fig. 3 Maximum Non-Repetitive Peak Forward Surge Current



$V_R$ , REVERSE VOLTAGE (V)  
Fig. 4 Typical Junction Capacitance