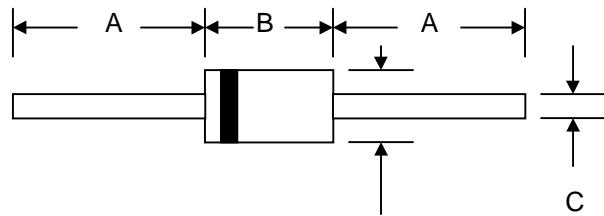


### Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability



### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.35 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

| DO-41 |      |       |
|-------|------|-------|
| Dim   | Min  | Max   |
| A     | 25.4 | —     |
| B     | 4.06 | 5.21  |
| C     | 0.71 | 0.864 |
| D     | 2.00 | 2.72  |

All Dimensions in mm

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Characteristic  | Symbol            | 1N<br>4001 | 1N<br>4002 | 1N<br>4003 | 1N<br>4004 | 1N<br>4005 | 1N<br>4006 | 1N<br>4007 | Unit             |
|---|-------------------|------------|------------|------------|------------|------------|------------|------------|------------------|
| Peak Repetitive Reverse Voltage   | $V_{RRM}$         |            |            |            |            |            |            |            |                  |
| Working Peak Reverse Voltage  | $V_{RWM}$         | 50         | 100        | 200        | 400        | 600        | 800        | 1000       | V                |
| DC Blocking Voltage   | $V_R$             |            |            |            |            |            |            |            |                  |
| RMS Reverse Voltage   | $V_R(\text{RMS})$ | 35         | 70         | 140        | 280        | 420        | 560        | 700        | V                |
| Average Rectified Output Current<br>(Note 1)  | $I_o$             |            |            |            |            |            |            |            | A                |
| $\text{@ } T_A = 75^\circ\text{C}$  |                   |            |            |            |            |            |            |            |                  |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method)             | $I_{FSM}$         |            |            |            |            |            |            |            | A                |
| Forward Voltage<br>$\text{@ } I_F = 1.0\text{A}$  | $V_{FM}$          |            |            |            |            |            |            |            | V                |
| Peak Reverse Current<br>$\text{@ } T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage<br>$\text{@ } T_A = 100^\circ\text{C}$ | $I_{RM}$          |            |            |            |            |            |            |            | $\mu\text{A}$    |
| Typical Junction Capacitance (Note 2)   | $C_j$             |            |            |            |            |            |            |            | pF               |
| Typical Thermal Resistance Junction to Ambient<br>(Note 1)  | $R_{\theta JA}$   |            |            |            |            |            |            |            | K/W              |
| Operating Temperature Range   | $T_j$             |            |            |            |            |            |            |            | $^\circ\text{C}$ |
| Storage Temperature Range   | $T_{STG}$         |            |            |            |            |            |            |            | $^\circ\text{C}$ |

\*Glass passivated forms are available upon request

Note: 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 D.C.

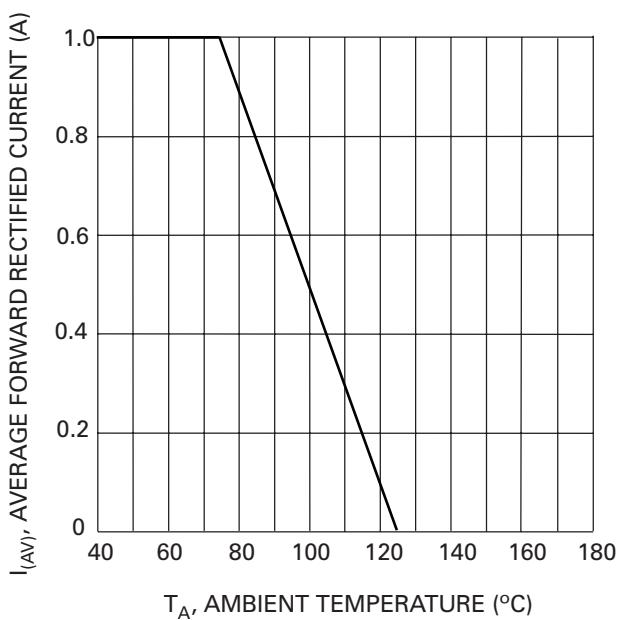


Fig. 1 Forward Current Derating Curve

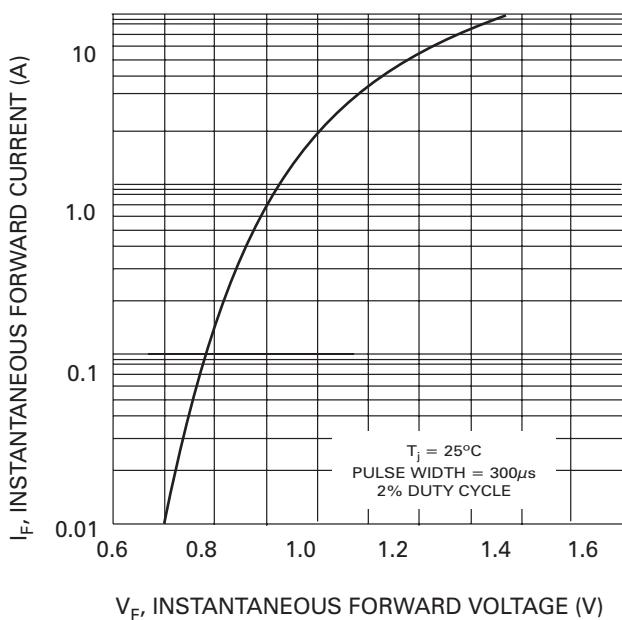


Fig. 2 Typical Forward Characteristics

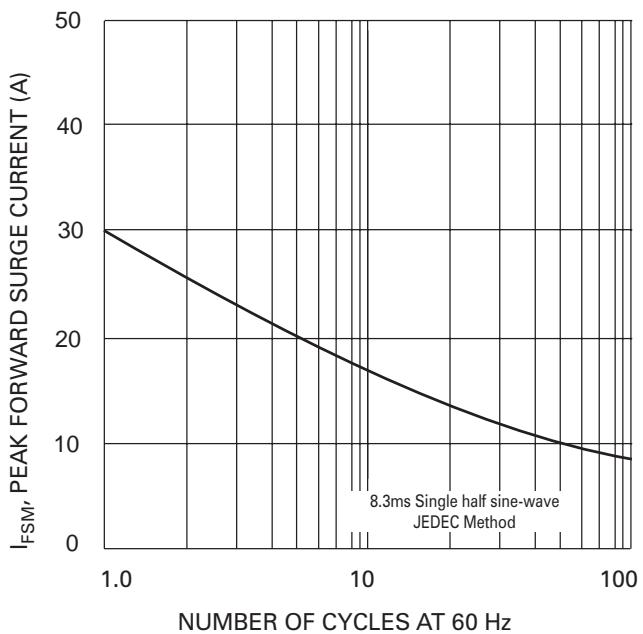


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

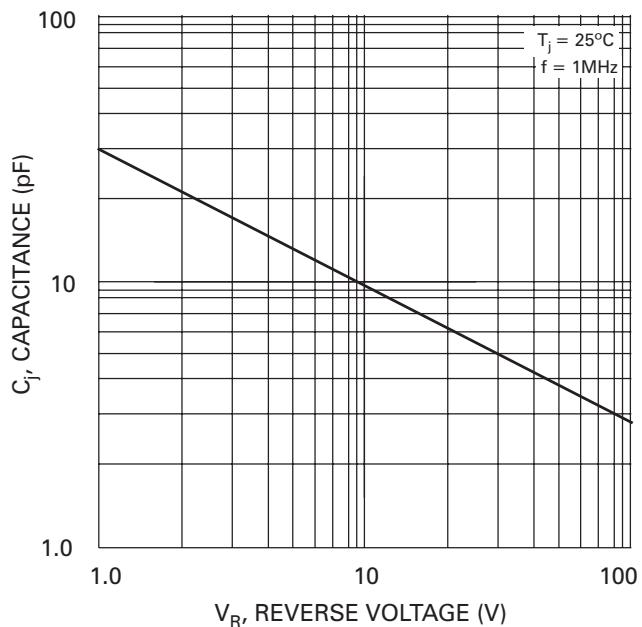


Fig. 4 Typical Junction Capacitance

## ORDERING INFORMATION

| <b>Product No.♦</b> | <b>Package Type</b> | <b>Shipping Quantity</b> |
|---------------------|---------------------|--------------------------|
| 1N4001-T3           | DO-41               | 5000/Tape & Reel         |
| <b>1N4001-TB</b>    | DO-41               | 5000/Tape & Box          |
| 1N4001              | DO-41               | 1000 Units/Box           |
| 1N4002-T3           | DO-41               | 5000/Tape & Reel         |
| <b>1N4002-TB</b>    | DO-41               | 5000/Tape & Box          |
| 1N4002              | DO-41               | 1000 Units/Box           |
| 1N4003-T3           | DO-41               | 5000/Tape & Reel         |
| <b>1N4003-TB</b>    | DO-41               | 5000/Tape & Box          |
| 1N4003              | DO-41               | 1000 Units/Box           |
| 1N4004-T3           | DO-41               | 5000/Tape & Reel         |
| <b>1N4004-TB</b>    | DO-41               | 5000/Tape & Box          |
| 1N4004              | DO-41               | 1000 Units/Box           |
| 1N4005-T3           | DO-41               | 5000/Tape & Reel         |
| <b>1N4005-TB</b>    | DO-41               | 5000/Tape & Box          |
| 1N4005              | DO-41               | 1000 Units/Box           |
| 1N4006-T3           | DO-41               | 5000/Tape & Reel         |
| <b>1N4006-TB</b>    | DO-41               | 5000/Tape & Box          |
| 1N4006              | DO-41               | 1000 Units/Box           |
| 1N4007-T3           | DO-41               | 5000/Tape & Reel         |
| <b>1N4007-TB</b>    | DO-41               | 5000/Tape & Box          |
| 1N4007              | DO-41               | 1000 Units/Box           |

Products listed in **bold** are WTE Preferred devices.

♦T3 suffix refers to a 13" reel. TB suffix refers to Ammo Pack.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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