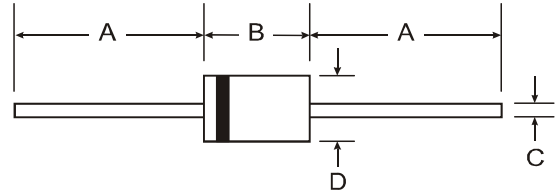


### Features

- Diffused Junction
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Low Reverse Leakage Current
- **Lead Free Finish, RoHS Compliant (Note 3)**

### Mechanical Data

- Case: DO-41
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminals: Finish - Bright Tin. Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Mounting Position: Any
- Ordering Information: See Page 2
- Marking: Type Number
- Weight: 0.30 grams (approximate)



| Dim                  | DO-41 Plastic |       |
|----------------------|---------------|-------|
|                      | Min           | Max   |
| A                    | 25.40         | —     |
| 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<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                            | 1N4001      | 1N4002 | 1N4003 | 1N4004 | 1N4005 | 1N4006 | 1N4007 | Unit |
|-----------------------------------------------------------------------------------------------------|-----------------------------------|-------------|--------|--------|--------|--------|--------|--------|------|
| Peak Repetitive Reverse Voltage                                                                     | V <sub>RRM</sub>                  |             |        |        |        |        |        |        |      |
| Working Peak Reverse Voltage                                                                        | V <sub>RWM</sub>                  | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V    |
| DC Blocking Voltage                                                                                 | V <sub>R</sub>                    |             |        |        |        |        |        |        |      |
| RMS Reverse Voltage                                                                                 | V <sub>R(RMS)</sub>               | 35          | 70     | 140    | 280    | 420    | 560    | 700    | V    |
| Average Rectified Output Current (Note 1) @ T <sub>A</sub> = 75°C                                   | I <sub>O</sub>                    | 1.0         |        |        |        |        |        |        | A    |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>single half sine-wave superimposed on rated load | I <sub>FSM</sub>                  | 30          |        |        |        |        |        |        | A    |
| Forward Voltage @ I <sub>F</sub> = 1.0A                                                             | V <sub>FM</sub>                   | 1.0         |        |        |        |        |        |        | V    |
| Peak Reverse Current @T <sub>A</sub> = 25°C                                                         | I <sub>RM</sub>                   | 5.0         |        |        |        |        |        |        | μA   |
| at Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C                                               |                                   | 50          |        |        |        |        |        |        |      |
| Typical Junction Capacitance (Note 2)                                                               | C <sub>j</sub>                    | 15          |        |        |        | 8      |        |        | pF   |
| Typical Thermal Resistance Junction to Ambient                                                      | R <sub>θJA</sub>                  | 100         |        |        |        |        |        |        | K/W  |
| Maximum DC Blocking Voltage Temperature                                                             | T <sub>A</sub>                    | +150        |        |        |        |        |        |        | °C   |
| 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.
  3. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes.

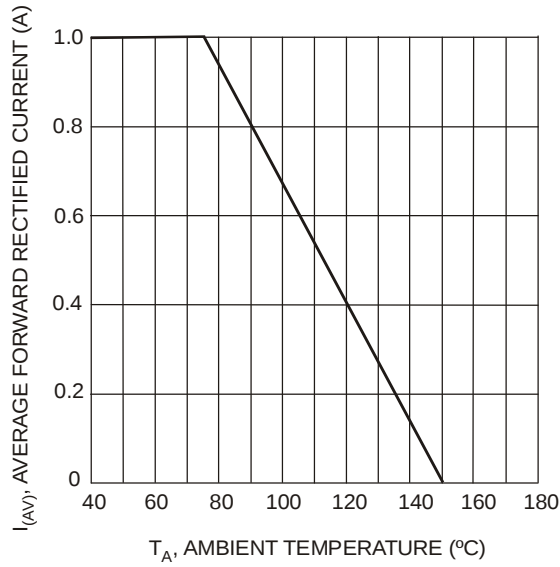


Fig. 1 Forward Current Derating Curve

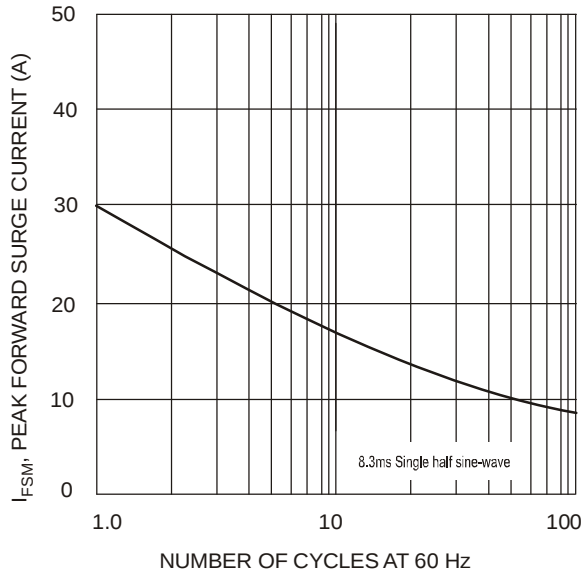


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

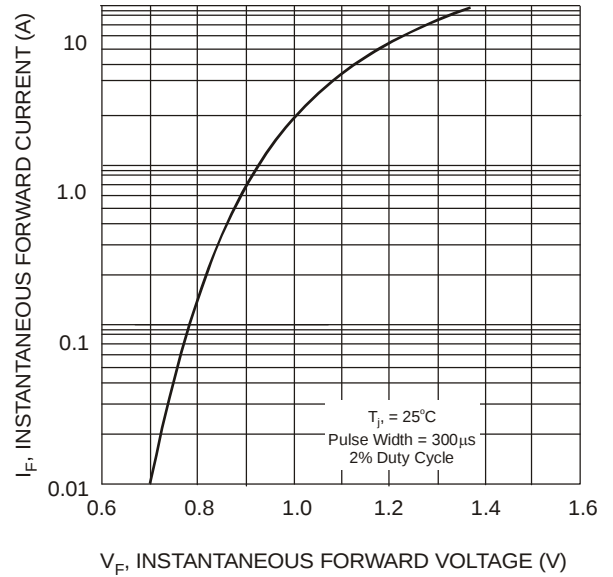


Fig. 2 Typical Forward Characteristics

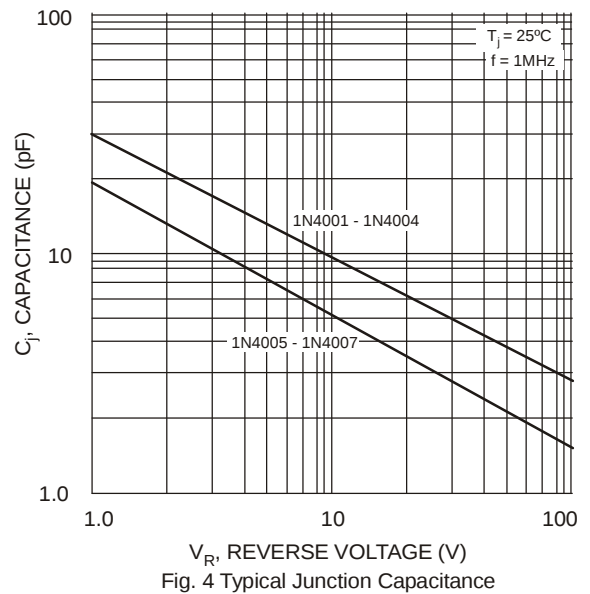


Fig. 4 Typical Junction Capacitance

## Ordering Information (Note 4)

| Device   | Packaging     | Shipping                |
|----------|---------------|-------------------------|
| 1N4001-B | DO-41 Plastic | 1K/Bulk                 |
| 1N4001-T | DO-41 Plastic | 5K/Tape & Reel, 13-inch |
| 1N4002-B | DO-41 Plastic | 1K/Bulk                 |
| 1N4002-T | DO-41 Plastic | 5K/Tape & Reel, 13-inch |
| 1N4003-B | DO-41 Plastic | 1K/Bulk                 |
| 1N4003-T | DO-41 Plastic | 5K/Tape & Reel, 13-inch |
| 1N4004-B | DO-41 Plastic | 1K/Bulk                 |
| 1N4004-T | DO-41 Plastic | 5K/Tape & Reel, 13-inch |
| 1N4005-B | DO-41 Plastic | 1K/Bulk                 |
| 1N4005-T | DO-41 Plastic | 5K/Tape & Reel, 13-inch |
| 1N4006-B | DO-41 Plastic | 1K/Bulk                 |
| 1N4006-T | DO-41 Plastic | 5K/Tape & Reel, 13-inch |
| 1N4007-B | DO-41 Plastic | 1K/Bulk                 |
| 1N4007-T | DO-41 Plastic | 5K/Tape & Reel, 13-inch |

Notes: 4. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>.

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- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
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- Наличие сертификата ISO.

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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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