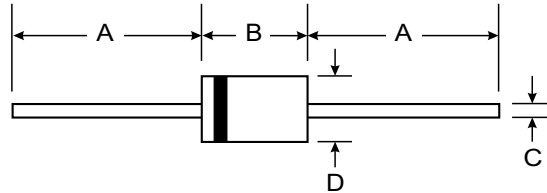


### Features

- Diffused Junction
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Low Reverse Leakage Current
- 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)  
A-405 0.20 grams (approx)
- Mounting Position: Any
- Marking: Type Number

|     | DO-41 Plastic |       | A-405 |      |
|-----|---------------|-------|-------|------|
| Dim | Min           | Max   | Min   | Max  |
| A   | 25.40         | —     | 25.40 | —    |
| B   | 4.06          | 5.21  | 4.10  | 5.20 |
| C   | 0.71          | 0.864 | 0.53  | 0.64 |
| D   | 2.00          | 2.72  | 2.00  | 2.70 |

All Dimensions in mm

"L" Suffix Designates A-405 Package  
No Suffix Designates DO-41 Package

### 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/L | 1N<br>4002/L | 1N<br>4003/L | 1N<br>4004/L | 1N<br>4005/L | 1N<br>4006/L | 1N<br>4007/L | Unit               |
|-----------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 50           | 100          | 200          | 400          | 600          | 800          | 1000         | V                  |
| RMS Reverse Voltage                                                                                                   | $V_{R(RMS)}$                    | 35           | 70           | 140          | 280          | 420          | 560          | 700          | V                  |
| Average Rectified Output Current<br>(Note 1)<br>@ $T_A = 75^{\circ}\text{C}$                                          | $I_O$                           | 1.0          |              |              |              |              |              |              | A                  |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>single half sine-wave superimposed on rated load<br>(JEDEC Method) | $I_{FSM}$                       | 30           |              |              |              |              |              |              | A                  |
| Forward Voltage<br>@ $I_F = 1.0\text{A}$                                                                              | $V_{FM}$                        | 1.0          |              |              |              |              |              |              | V                  |
| Peak Reverse Current<br>at Rated DC Blocking Voltage<br>@ $T_A = 25^{\circ}\text{C}$<br>@ $T_A = 100^{\circ}\text{C}$ | $I_{RM}$                        | 5.0<br>50    |              |              |              |              |              |              | $\mu\text{A}$      |
| Typical Junction Capacitance (Note 2)                                                                                 | $C_j$                           | 15           |              |              |              | 8            |              |              | pF                 |
| Typical Thermal Resistance Junction to Ambient                                                                        | $R_{\theta JA}$                 | 100          |              |              |              |              |              |              | K/W                |
| Maximum DC Blocking Voltage Temperature                                                                               | $T_A$                           | +150         |              |              |              |              |              |              | $^{\circ}\text{C}$ |
| Operating and Storage Temperature Range (Note 3)                                                                      | $T_j, T_{STG}$                  | -65 to +175  |              |              |              |              |              |              | $^{\circ}\text{C}$ |

- Notes:
1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
  2. Measured at 1. MHz and applied reverse voltage of 4.0V DC.
  3. JEDEC Value.

