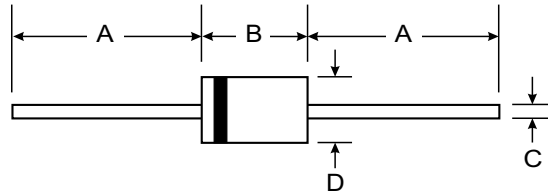


### Features

- Glass Passivated Die Construction
- Diffused Junction
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Plastic Material - UL Flammability Classification 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 |               |       |       |      |

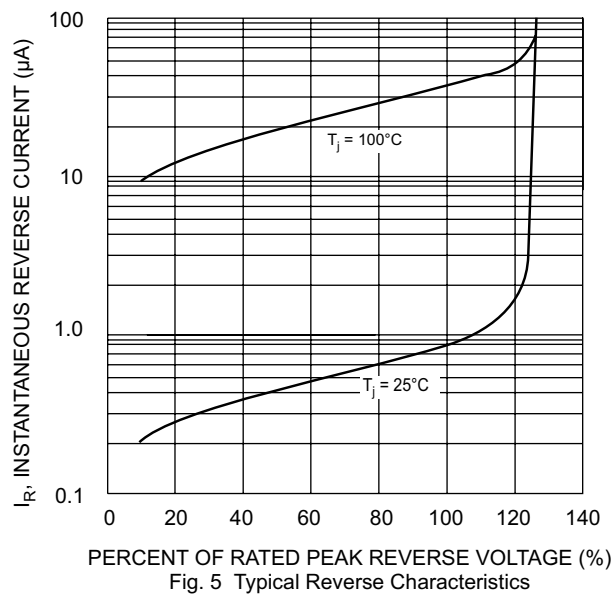
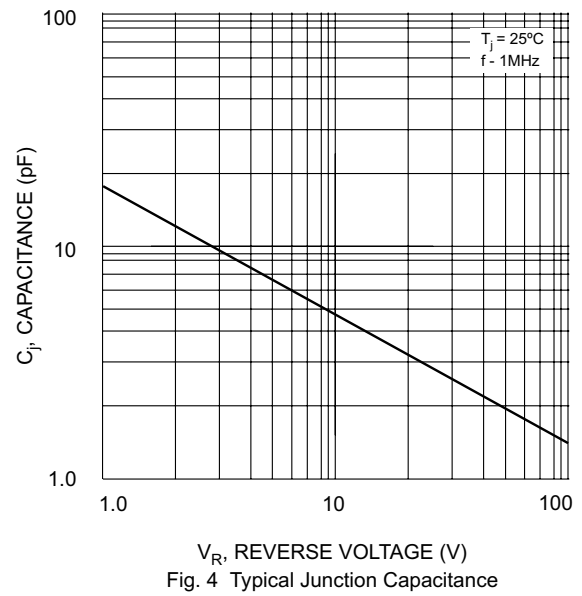
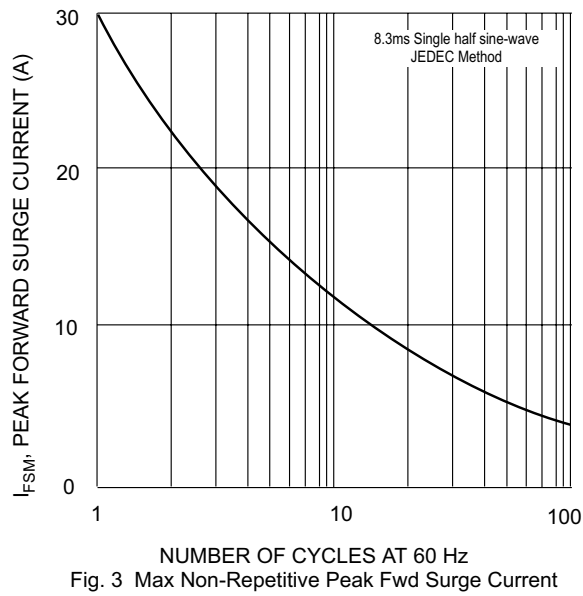
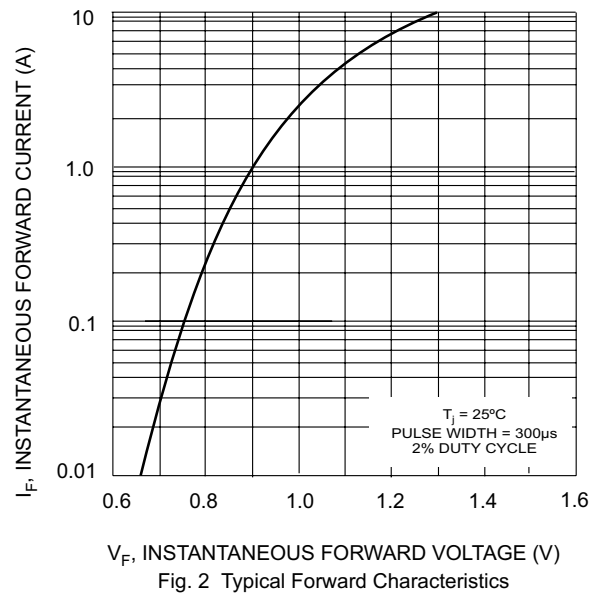
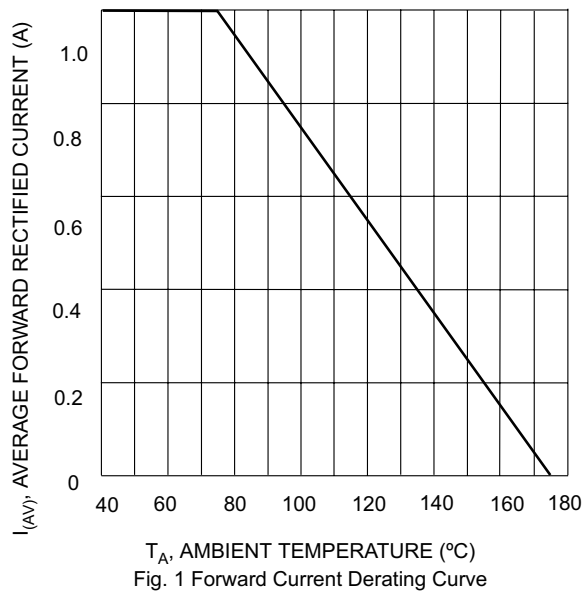
"L" Suffix Designates A-405 Package  
No Suffix Designates DO-41 Package

### Maximum Ratings and Electrical Characteristics @ T<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<br>G/GL | 1N4002<br>G/GL | 1N4003<br>G/GL | 1N4004<br>G/GL | 1N4005<br>G/GL | 1N4006<br>G/GL | 1N4007<br>G/GL | Unit |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|
| Peak Repetitive Reverse Voltage                                                                                          | V <sub>RRM</sub>                  | 50             | 100            | 200            | 400            | 600            | 800            | 1000           | V    |
| Working Peak Reverse Voltage                                                                                             | V <sub>RWM</sub>                  |                |                |                |                |                |                |                |      |
| 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<br>(Note 1) @ T <sub>A</sub> = 75°C                                                     | I <sub>O</sub>                    | 1.0            |                |                |                |                |                |                | A    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms<br>single half sine-wave superimposed on rated load<br>(JEDEC Method) | 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<br>at Rated DC Blocking Voltage @ T <sub>A</sub> = 125°C                    | I <sub>RM</sub>                   | 5.0<br>50      |                |                |                |                |                |                | μA   |
| Reverse Recovery Time (Note 3)                                                                                           | t <sub>rr</sub>                   | 2.0            |                |                |                |                |                |                | μs   |
| Typical Junction Capacitance (Note 2)                                                                                    | C <sub>j</sub>                    | 8.0            |                |                |                |                |                |                | pF   |
| Typical Thermal Resistance Junction to Ambient                                                                           | R <sub>θJA</sub>                  | 100            |                |                |                |                |                |                | K/W  |
| Operating and Storage Temperature Range                                                                                  | T <sub>j</sub> , T <sub>STG</sub> | -65 to +175    |                |                |                |                |                |                | °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. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = -1A, I<sub>rr</sub> = 0.25A.



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