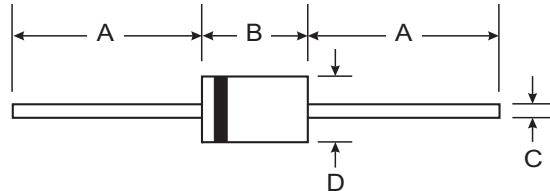


### Features

- Diffused Junction
- Fast Switching for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Low Reverse Leakage Current
- **Lead Free Finish, RoHS Compliant (Note 4)**



### Mechanical Data

- Case: DO-41, A-405
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish - Bright Tin. Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Mounting Position: Any
- Ordering Information: See Last Page
- Marking: Type Number
- Weight: DO-41 0.35 grams (approximate)  
A-405 0.20 grams (approximate)

| Dim                         | DO-41 Plastic |       | A-405 |      |
|-----------------------------|---------------|-------|-------|------|
|                             | 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 |
| <b>All Dimensions in mm</b> |               |       |       |      |

"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                            | 1N4933/L    | 1N4934/L | 1N4935/L | 1N4936/L | 1N4937/L | Unit |
|---|-----------------------------------|-------------|----------|----------|----------|----------|------|
| Peak Repetitive Reverse Voltage   | V <sub>RRM</sub>                  | 50          | 100      | 200      | 400      | 600      | 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      | V    |
| Average Rectified Output Current (Note 1)   | I <sub>O</sub>                    | 1.0         |          |          |          |          | A    |
| @ T <sub>A</sub> = 75°C   |                                   |             |          |          |          |          |      |
| Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>                  | 30          |          |          |          |          | A    |
| Forward Voltage Drop  | V <sub>FM</sub>                   | 1.2         |          |          |          |          | V    |
| @ I <sub>F</sub> = 1.0A   |                                   |             |          |          |          |          |      |
| Peak Reverse Current  | I <sub>RM</sub>                   | 5.0         |          |          |          |          | μA   |
| @ T <sub>A</sub> = 25°C   |                                   |             |          |          |          |          |      |
| at Rated DC Blocking Voltage  |                                   | 100         |          |          |          |          |      |
| @ T <sub>A</sub> = 100°C  |                                   |             |          |          |          |          |      |
| Reverse Recovery Time (Note 3)  | t <sub>rr</sub>                   | 200         |          |          |          |          | ns   |
| Typical Junction Capacitance (Note 2)   | C <sub>j</sub>                    | 15          |          |          |          |          | 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 +150 |          |          |          |          | °C   |

- Notes:
1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
  2. Measured at 1.0MHz 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.
  4. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.

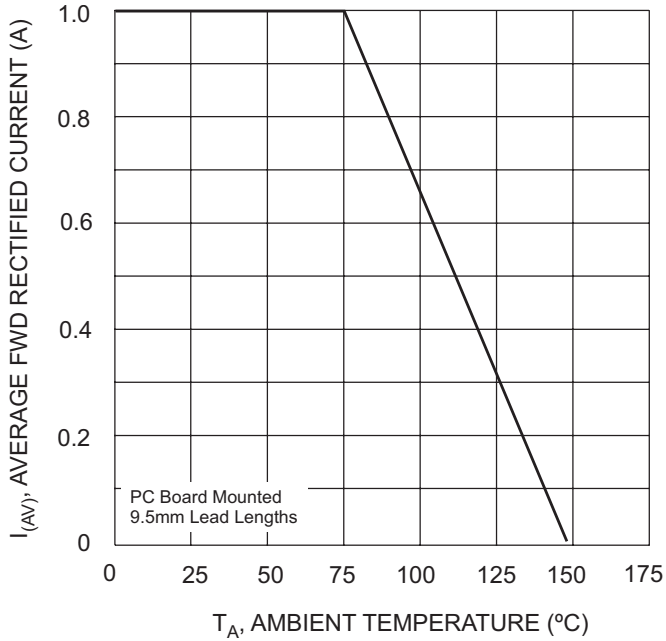


Fig. 1 Forward Current Derating Curves

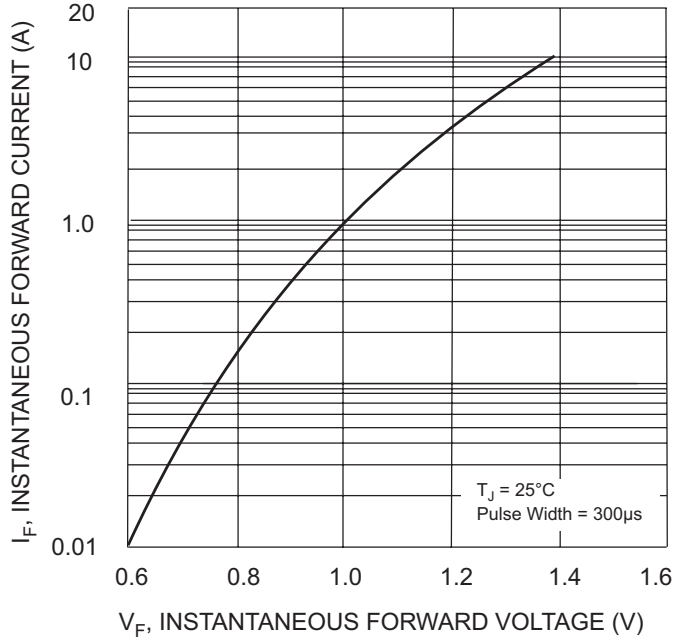


Fig. 2 Typical Forward Characteristics

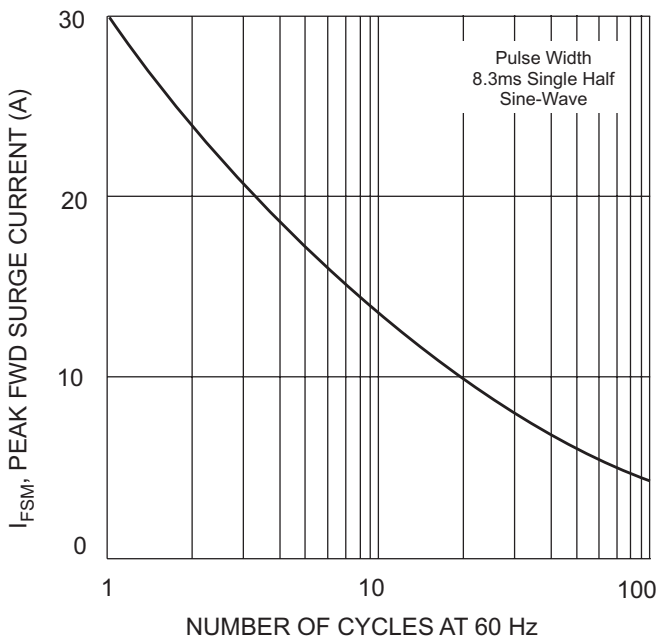


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

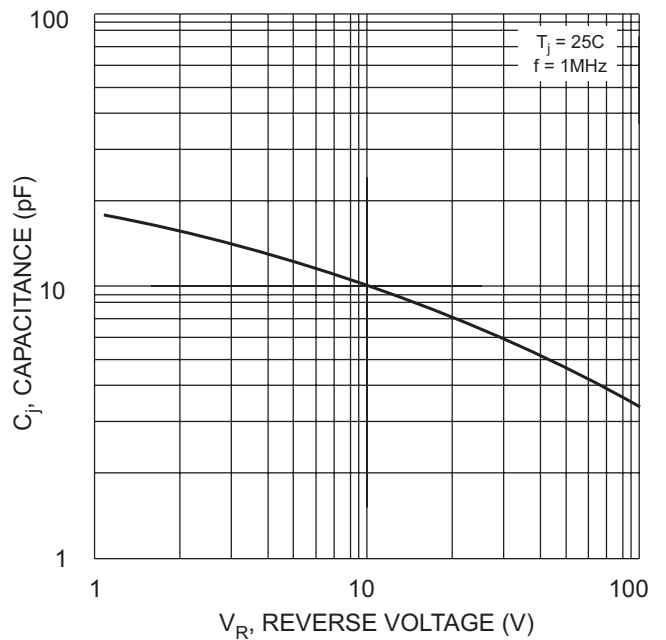


Fig. 4 Typical Junction Capacitance

## Ordering Information (Note 5)

| Device    | Packaging | Shipping                |
|-----------|-----------|-------------------------|
| 1N4933-A  | DO-41     | 5K/Ammo Pack            |
| 1N4933-B  | DO-41     | 1K/Bulk                 |
| 1N4933-T  | DO-41     | 5K/Tape & Reel, 13-inch |
| 1N4934-A  | DO-41     | 5K/Ammo Pack            |
| 1N4934-B  | DO-41     | 1K/Bulk                 |
| 1N4934-T  | DO-41     | 5K/Tape & Reel, 13-inch |
| 1N4935-A  | DO-41     | 5K/Ammo Pack            |
| 1N4935-B  | DO-41     | 1K/Bulk                 |
| 1N4935-T  | DO-41     | 5K/Tape & Reel, 13-inch |
| 1N4936-A  | DO-41     | 5K/Ammo Pack            |
| 1N4936-B  | DO-41     | 1K/Bulk                 |
| 1N4936-T  | DO-41     | 5K/Tape & Reel, 13-inch |
| 1N4937-A  | DO-41     | 5K/Ammo Pack            |
| 1N4937-B  | DO-41     | 1K/Bulk                 |
| 1N4937-T  | DO-41     | 5K/Tape & Reel, 13-inch |
| 1N4933L-T | A-405     | 5K/Tape & Reel, 13-inch |
| 1N4934L-T | A-405     | 5K/Tape & Reel, 13-inch |
| 1N4935L-T | A-405     | 5K/Tape & Reel, 13-inch |
| 1N4936L-T | A-405     | 5K/Tape & Reel, 13-inch |
| 1N4937L-T | A-405     | 5K/Tape & Reel, 13-inch |

Notes: 5. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>