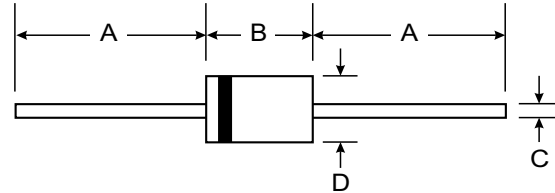


### Features

- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- Super-fast Switching Speed < 35ns
- Plastic Material: UL Flammability Classification Rating 94V-0



### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Axial Leads, Solderable per MIL-STD-202 Method 208
- Polarity: Color Band Denotes Cathode
- Approx. Weight: 0.3 grams
- Mounting Position: Any

| DO-41                |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 25.4 | —    |
| B                    | 4.1  | 5.2  |
| C                    | 0.71 | 0.86 |
| D                    | 2.0  | 2.7  |
| All Dimensions in mm |      |      |

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

| Characteristic                                                                                    | Symbol         | SF11         | SF12 | SF13 | SF14 | Unit             |
|---------------------------------------------------------------------------------------------------|----------------|--------------|------|------|------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                            | $V_{RRM}$      | 50           | 100  | 150  | 200  | V                |
| Maximum RMS Voltage                                                                               | $V_{RMS}$      | 35           | 70   | 105  | 140  | V                |
| Maximum DC Blocking voltage                                                                       | $V_{DC}$       | 50           | 100  | 150  | 200  | V                |
| Maximum Average Forward Rectified Current .375" 9.5mm Lead Length<br>@ $T_A=55^\circ\text{C}$     | $I_{AV}$       | 1.0          |      |      |      | A                |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FM}$       | 30           |      |      |      | A                |
| Maximum Instantaneous Forward Voltage at 1.0A DC                                                  | $V_f$          | 0.975        |      |      |      | V                |
| Maximum DC Reverse Current at Rated DC Blocking Voltage                                           | $I_R$          | 5.0          |      |      |      | $\mu\text{A}$    |
| Maximum DC Reverse Current at Rated DC Blocking Voltage<br>@ $T_A = 150^\circ\text{C}$            | $I_R$          | 50           |      |      |      | $\mu\text{A}$    |
| Maximum Reverse Recovery Time (Note 1)                                                            | $T_{rr}$       | 35           |      |      |      | ns               |
| Typical Junction Capacitance (Note 2)                                                             | $C_J$          | 63           |      |      |      | pF               |
| Operating and Storage Temperature Range                                                           | $T_J, T_{STG}$ | -65 to + 175 |      |      |      | $^\circ\text{C}$ |

- Notes: 1. Reverse Recovery Test Conditions:  $I_F=0.5\text{ A}$ ,  $I_R=1.0\text{ A}$ ,  $I_{RR}=0.25\text{ A}$   
2. Measured at 1.0MHz and applied reverse voltage of 4.0V.

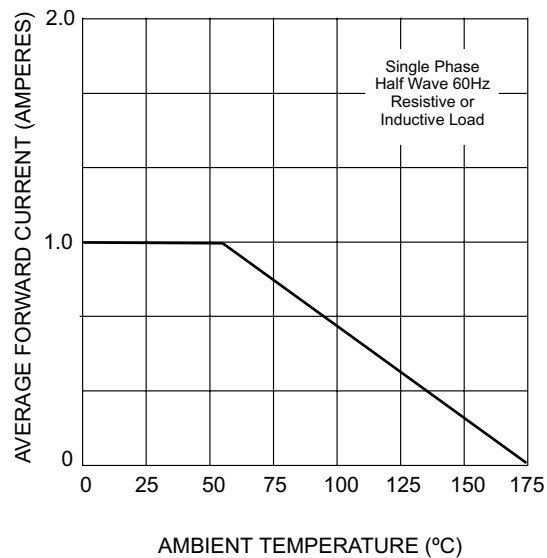


Fig. 1 Typical Forward Current Derating Curve

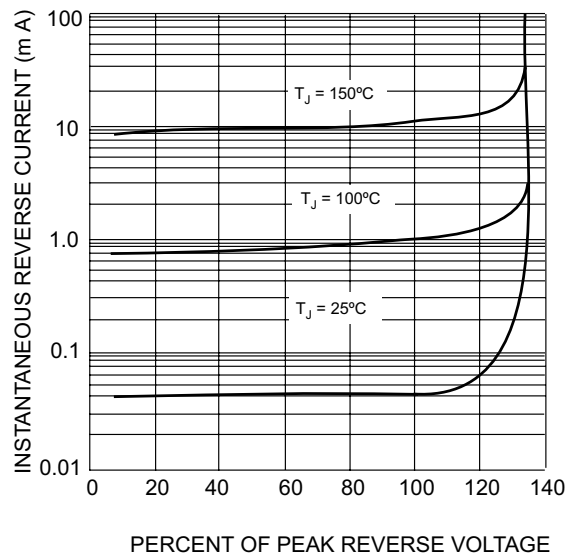


Fig. 2 Typical Reverse Characteristics

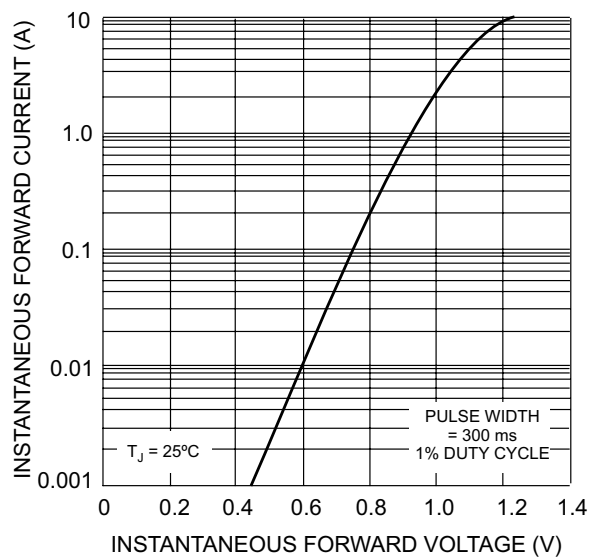


Fig. 3 Typ. Instantaneous Fwd Characteristics

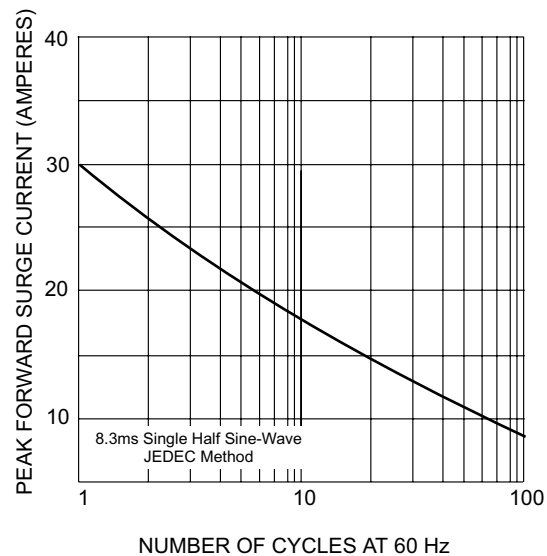


Fig. 4 Max Non-Repetitive Peak Fwd Surge Current (A)

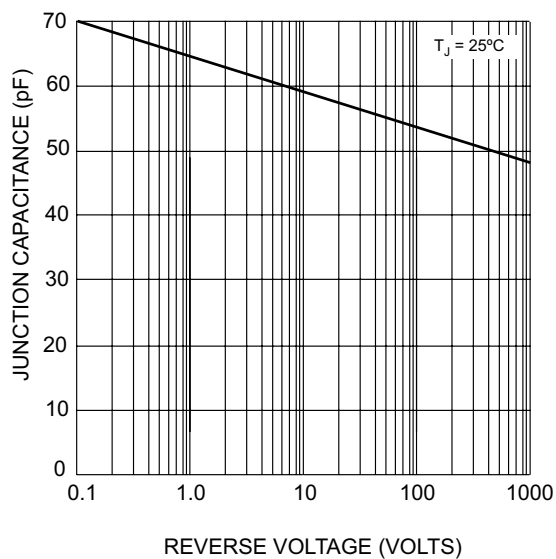


Fig. 5 Typical Junction Capacitance