

### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Open Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed  
250°C/10 seconds at terminals

### Mechanical Data

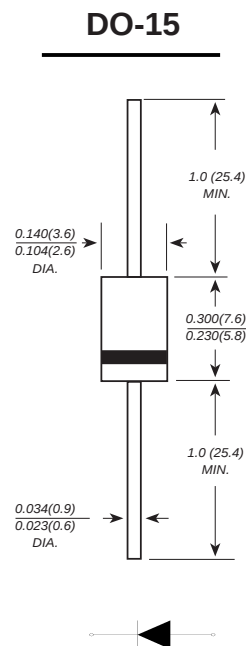
**Case :** Molded plastic body

**Terminals :** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity :** Polarity symbol marking on body

**Mounting Position :** Any

**Weight :** 0.0116 ounce, 0.33 grams



Dimensions in inches and (millimeters)

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter                                                                                                   | SYMBOLS                          | SF21        | SF22 | SF23 | SF24 | SF25 | SF26 | SF27 | SF28 | UNITS |
|-------------------------------------------------------------------------------------------------------------|----------------------------------|-------------|------|------|------|------|------|------|------|-------|
| Maximum repetitive peak reverse voltage                                                                     | V <sub>RRM</sub>                 | 50          | 100  | 150  | 200  | 300  | 400  | 500  | 600  | V     |
| Maximum RMS voltage                                                                                         | V <sub>RMS</sub>                 | 35          | 70   | 105  | 140  | 210  | 280  | 350  | 420  | V     |
| Maximum DC blocking voltage                                                                                 | V <sub>DC</sub>                  | 50          | 100  | 150  | 200  | 300  | 400  | 500  | 600  | V     |
| Maximum average forward rectified current at T <sub>L</sub> =100°C                                          | I <sub>(AV)</sub>                | 2.0         |      |      |      |      |      |      |      | A     |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load                          | I <sub>FSM</sub>                 | 60.0        |      |      |      |      |      |      |      | A     |
| Maximum instantaneous forward voltage at 2.0A                                                               | V <sub>F</sub>                   | 0.95        |      |      |      | 1.25 |      | 1.7  |      | V     |
| Maximum DC reverse current    T <sub>A</sub> =25°C<br>at rated DC blocking voltage    T <sub>A</sub> =125°C | I <sub>R</sub>                   | 10.0<br>500 |      |      |      |      |      |      |      | u A   |
| Maxinum reverse recovery time(Note 1)                                                                       | T <sub>rr</sub>                  | 35          |      |      |      |      |      |      |      | ns    |
| Typical junction capacitance (Note2)                                                                        | C <sub>J</sub>                   | 40.0        |      |      |      |      |      |      |      | pF    |
| Typical thermal resistance                                                                                  | R <sub>qJA</sub>                 | 75.0        |      |      |      |      |      |      |      | °C/W  |
| Operating junction and storage temperature range                                                            | T <sub>J</sub> ,T <sub>STG</sub> | -55 to +150 |      |      |      |      |      |      |      | °C    |

**Note:** 1.Reverse recovery time test condition:  $I_F=0.5\text{A}$   $I_R=1.0\text{A}$   $I_{rr}=0.25\text{A}$

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

### Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

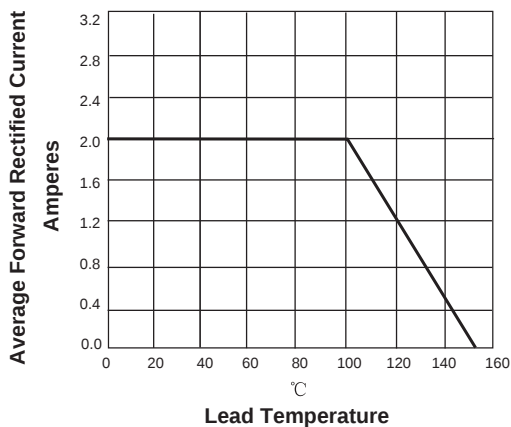


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

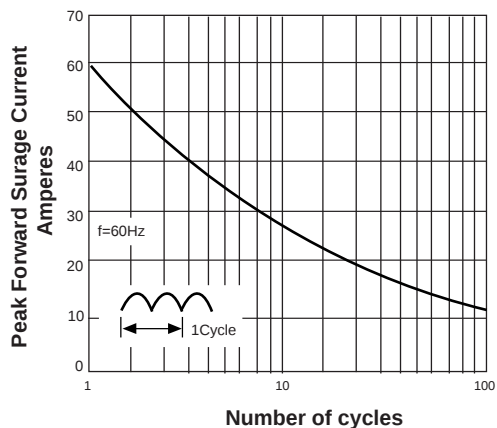


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

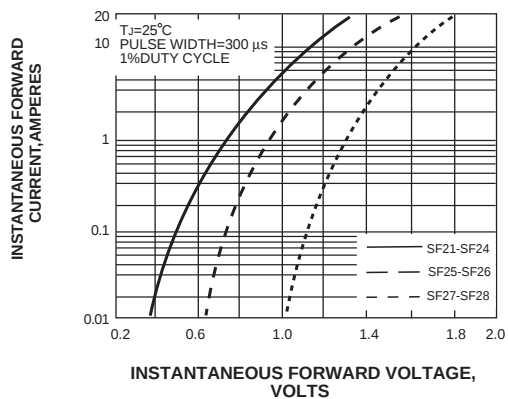
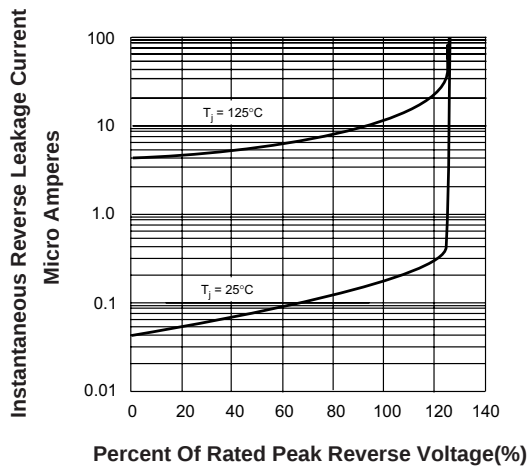
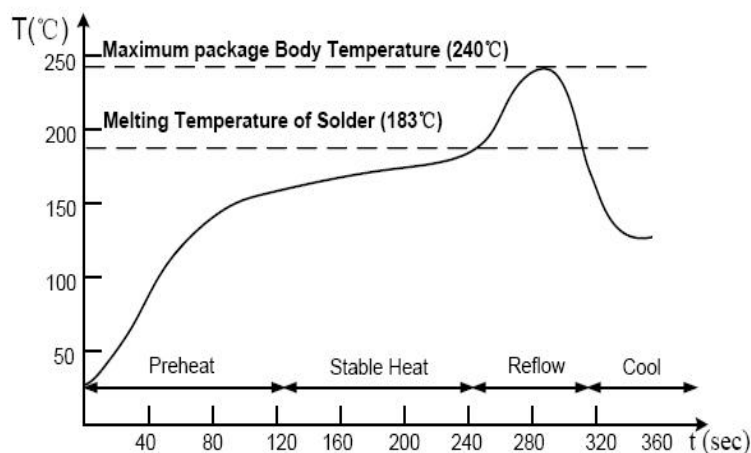


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



### Suggested Soldering Temperature Profile

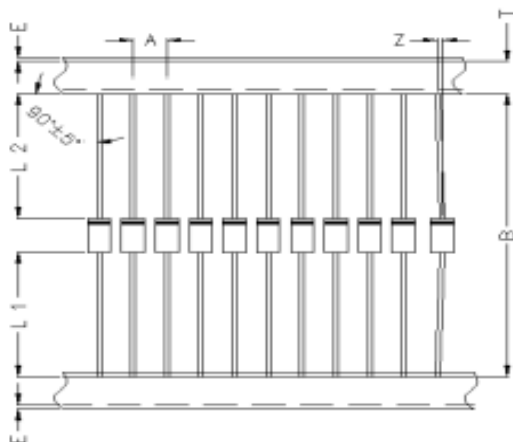


#### Note

- ◆ Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- ◆ The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- ◆ Devices can be cleaned using standard industry methods and solvents.
- ◆ If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

### Package Information

#### Taping Specifications



| Item                | Symbol | Specifications(mm) |
|---------------------|--------|--------------------|
| Component Pitch     | A      | 5.0±0.5            |
| Inner Tape Pitch    | B      | 52.4±1.5           |
| Component alignment | Z      | 1.2 Max            |
| Tape width          | T      | 6.0±0.5            |
| Exposed adhesive    | E      | 0.8 Max            |
| Body eccentricity   | L1-L2  | 1.0 Max            |

#### Ammunition Package Specifications

| Package | Inner Box Size (mm) | QTY/Box (Kpcs) | Carton Size (mm) | Q'TY/Carton (Kpcs) |
|---------|---------------------|----------------|------------------|--------------------|
| DO - 15 | 255*150*75          | 3              | 420*276*312      | 30                 |