

## 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

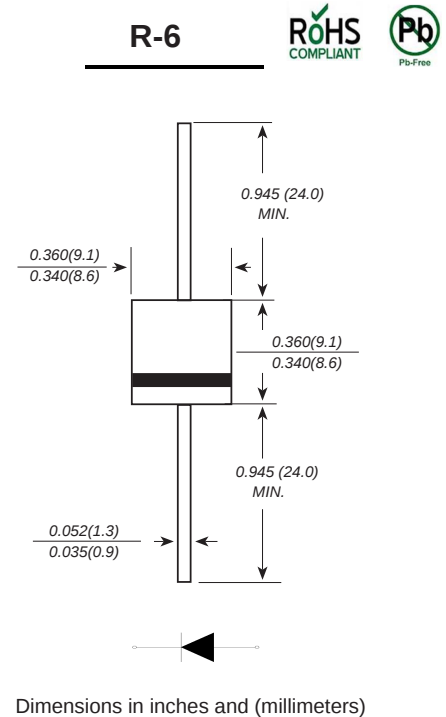
**Case :** Molded plastic body

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

**Polarity :** Polarity symbol marking on body

**Mounting Position :** Any

**Weight :** 0.072 ounce, 2.05 grams



## 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        | 10A05       | 10A1 | 10A2 | 10A3 | 10A4 | 10A5 | 10A6 | 10A8 | 10A10 | UNITS              |
|-----------------------------------------------------------------------------------------------------------|----------------|-------------|------|------|------|------|------|------|------|-------|--------------------|
| Maximum repetitive peak reverse voltage                                                                   | $V_{RRM}$      | 50          | 100  | 200  | 300  | 400  | 500  | 600  | 800  | 1000  | V                  |
| Maximum RMS voltage                                                                                       | $V_{RMS}$      | 35          | 70   | 140  | 210  | 280  | 350  | 420  | 560  | 700   | V                  |
| Maximum DC blocking voltage                                                                               | $V_{DC}$       | 50          | 100  | 200  | 300  | 400  | 500  | 600  | 800  | 1000  | V                  |
| Maximum average forward rectified current at $T_L=100^\circ\text{C}$                                      | $I_{(AV)}$     | 10.0        |      |      |      |      |      |      |      |       | A                  |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load                        | $I_{FSM}$      | 400.0       |      |      |      |      |      |      |      |       | A                  |
| Maximum instantaneous forward voltage at 10.0A                                                            | $V_F$          | 1.10        |      |      |      |      |      |      |      |       | V                  |
| Maximum DC reverse current $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage $T_A=125^\circ\text{C}$ | $I_R$          | 10.0<br>500 |      |      |      |      |      |      |      |       | $\mu\text{A}$      |
| Typical junction capacitance (Note1)                                                                      | $C_J$          | 150.0       |      |      |      |      |      |      |      |       | pF                 |
| Typical thermal resistance                                                                                | $R_{qJA}$      | 40.0        |      |      |      |      |      |      |      |       | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range                                                          | $T_J, T_{STG}$ | -55 to +150 |      |      |      |      |      |      |      |       | $^\circ\text{C}$   |

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

## Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

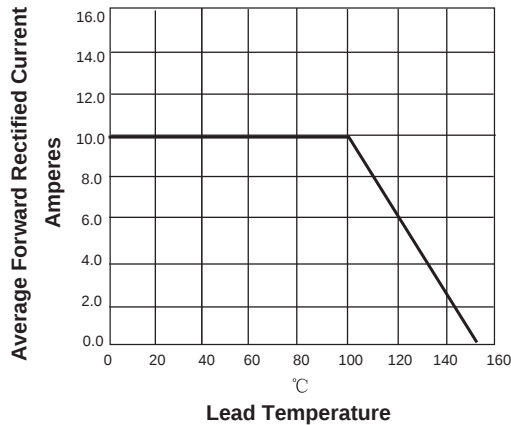


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

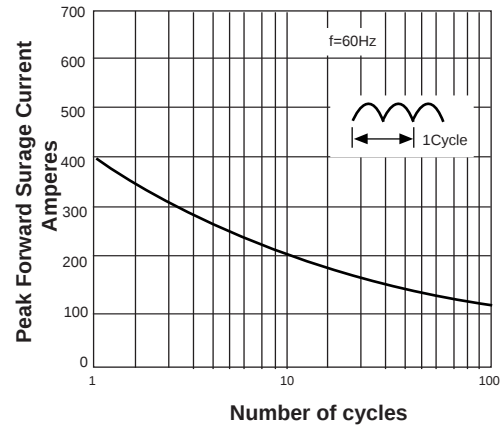


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

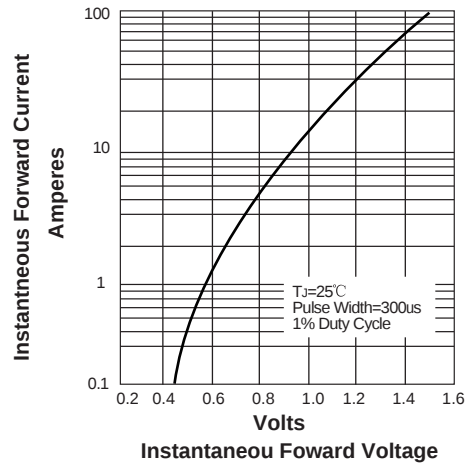
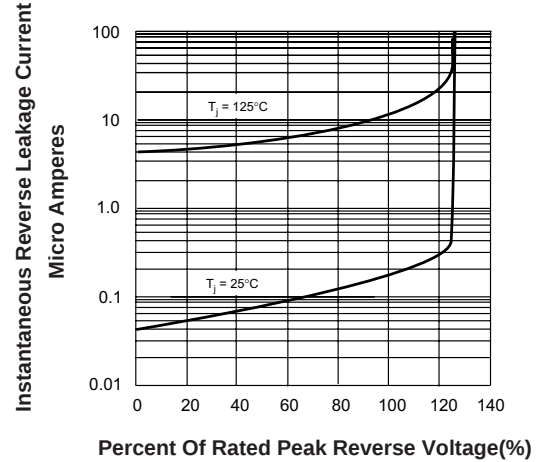
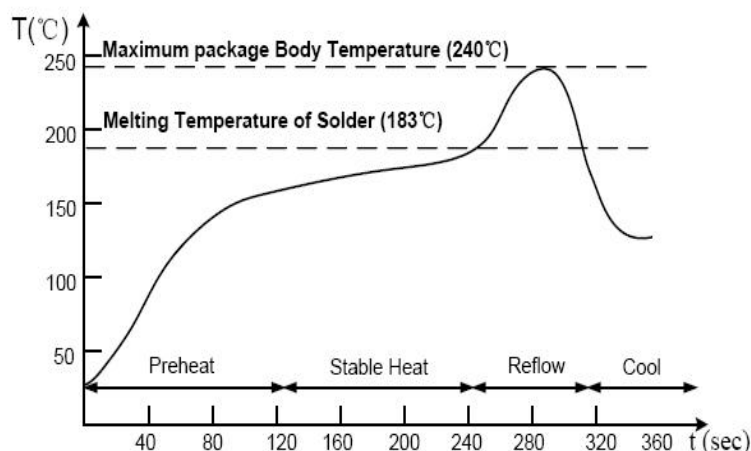


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



## Suggested Soldering Temperature Profile

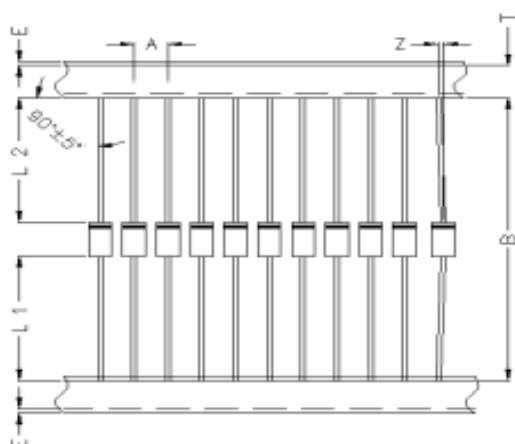


### Note

- ◆ 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      | 10.0±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) |
|---------|---------------------|----------------|------------------|--------------------|
| R - 6   | 255*150*75          | 0.5            | 420*276*312      | 5.0                |