

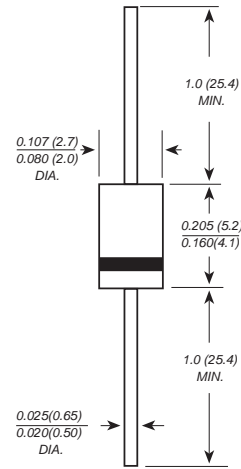
Features

- 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
260°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 : 0.0088 ounce, 0.25 grams

A-405



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 | SF11S | SF12S | SF13S | SF14S | SF15S | SF16S | SF17S | SF18S | UNITS |
|--|----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 | V |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | 350 | 420 | V |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 | V |
| Maximum average forward rectified current at T _L =100°C | I _(AV) | 1.0 | | | | | | | | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 30.0 | | | | | | | | A |
| Maximum instantaneous forward voltage at 1.0A | V _F | 1.0 | | | 1.3 | | 1.7 | | | V |
| Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C | I _R | 5.0 | | | | 200 | | | | uA |
| Maximum reverse recovery time(Note 1) | T _{rr} | 35 | | | | | | | | ns |
| Typical junction capacitance (Note2) | C _J | 30.0 | | | | | | | | pF |
| Typical thermal resistance | R _{qJA} | 65.0 | | | | | | | | °C/W |
| Operating junction and storage temperature range | T _J ,T _{STG} | -55 to +150 | | | | | | | | °C |

Note: 1.Reverse recovery time test condition: I_F=0.5A I_R=1.0A I_{rr}=0.25A
 2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

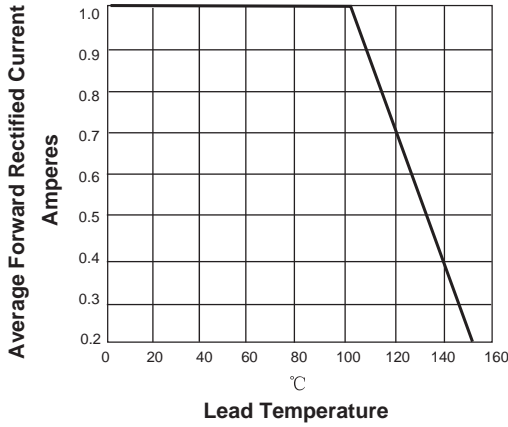


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

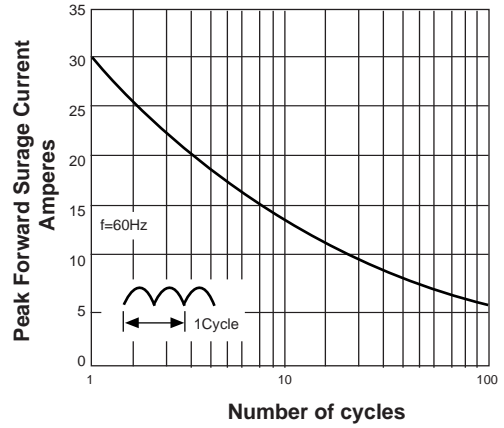


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

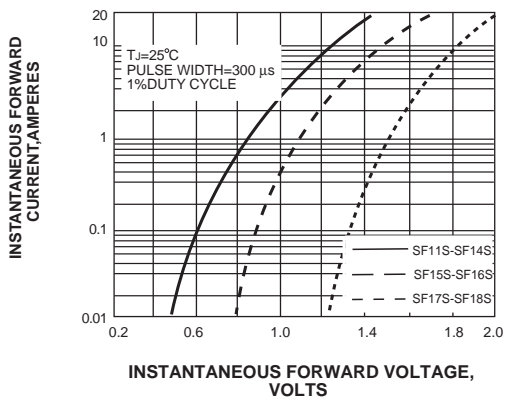
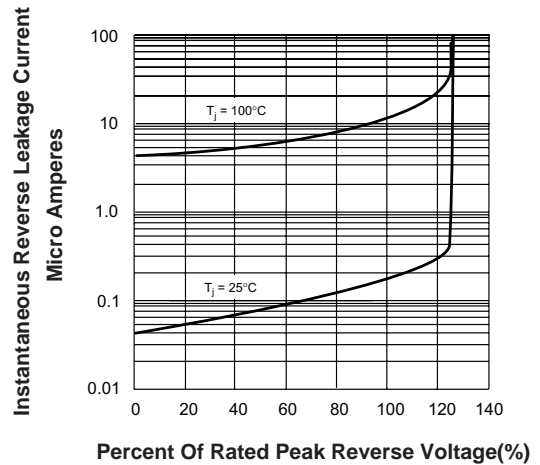
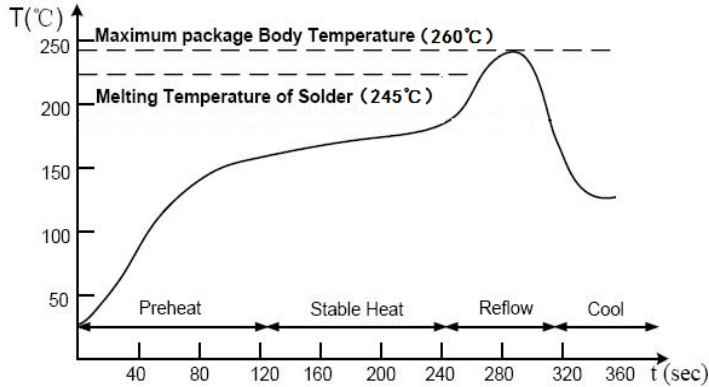


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Suggested Soldering Temperature Profile

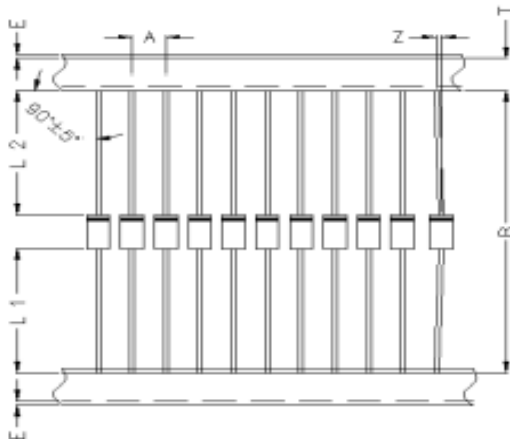


Note

- ◆ Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- ◆ The device can be exposed to a maximum temperature of 260°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) |
|---------|---------------------|----------------|------------------|--------------------|
| A - 405 | 255*150*75 | 5 | 420*276*312 | 50 |