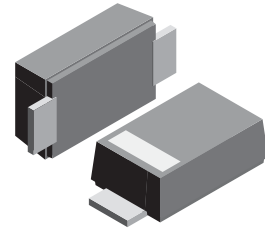


VOLTAGE RANGE: 20 - 100V

CURRENT: 3.0 A

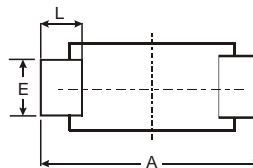
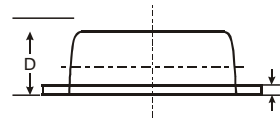
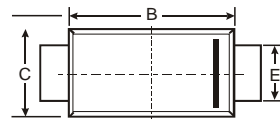
Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375(9.5mm) lead length,
5 lbs. (2.3kg) tension



Mechanical Data

- Case: JEDEC SOD-123FL molded plastic body over passivated junction
- Terminals : Plated axial leads,
- solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight: 0.0007 ounce, 0.02 grams



| SOD-123FL | | | |
|----------------------|------|------|-------|
| Dim | Min | Max | Typ |
| A | 3.50 | 3.80 | 3.65 |
| B | 2.60 | 2.90 | 2.75 |
| C | 1.70 | 1.90 | 1.80 |
| D | 0.09 | 1.10 | 1.00 |
| E | 0.08 | 1.10 | 0.095 |
| H | 0.12 | 0.20 | 0.16 |
| L | 0.07 | 0.09 | 0.08 |
| All Dimensions in mm | | | |



Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

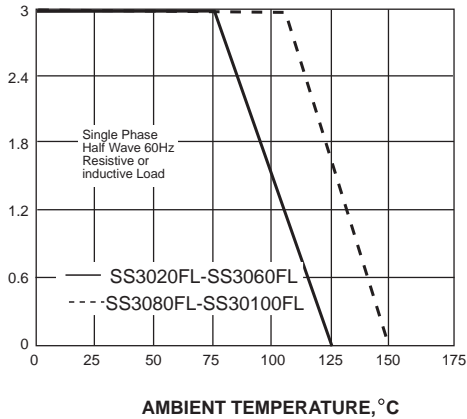
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | SS3020FL | SS3030FL | SS3040FL | SS3060FL | SS3080FL | SS3090FL | SS30100FL | Unit |
|--------------------------------------------------------------------------------------------------------|-------------------|-------------|----------|----------|-------------|----------|----------|-----------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 20 | 30 | 40 | 60 | 80 | 90 | 100 | Volts |
| Maximum RMS voltage | V _{RMS} | 14 | 21 | 28 | 42 | 56 | 63 | 70 | Volts |
| Maximum DC blocking voltage | V _{DC} | 20 | 30 | 40 | 60 | 80 | 90 | 100 | Volts |
| Maximum average forward rectified current | I _(AV) | 3.0 | | | | | | | Amp |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 80.0 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 3.0A | V _F | 0.52 | 0.55 | 0.70 | | 0.85 | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage | I _R | 0.5 | | | 20.0 | | 10.0 | | mA |
| Operating junction temperature range | T _J | -50 to +125 | | | -50 to +150 | | | | °C |
| Storage temperature range | T _{STG} | -50 to +150 | | | | | | | °C |

RATINGS AND CHARACTERISTIC CURVES SS3020FL THRU SS30100FL

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT, AMPERES

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

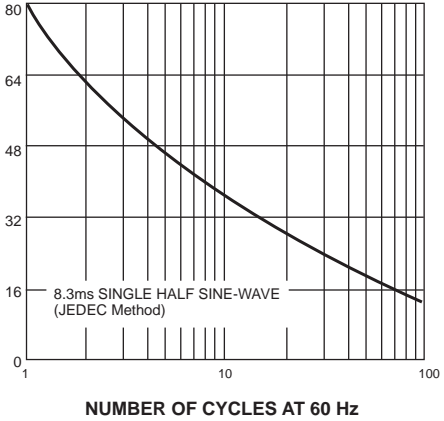


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

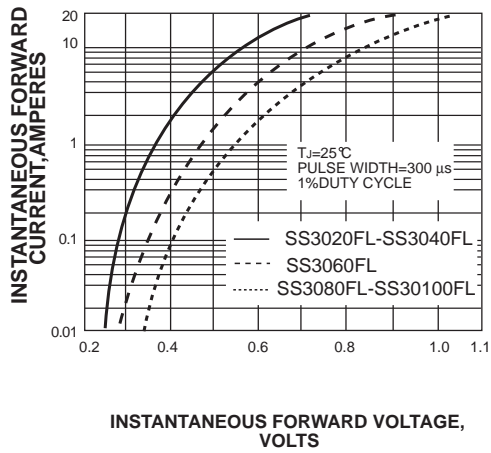


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

