

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low forward surge current
- Ideal for surface mounted applications
- Low leakage current

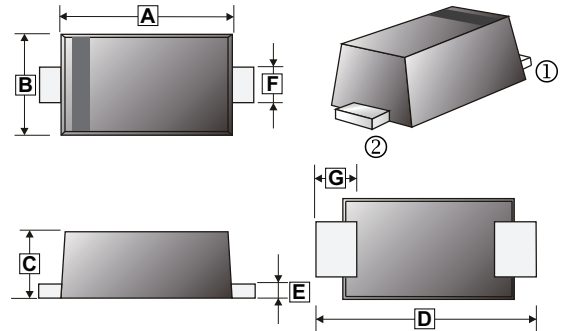
MECHANICAL DATA

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any

MARKING

| Product | Marking Code | Product | Marking Code |
|---------|--------------|----------|--------------|
| SM220FL | 2S | SM260FL | 6S |
| SM230FL | 3S | SM280FL | 8S |
| SM240FL | 4S | SM2100FL | AS |

SOD-123FL



| REF. | Millimeter | | REF. | Millimeter | |
|------|------------|------|------|------------|------|
| | Min. | Max. | | Min. | Max. |
| A | 2.70 | 2.90 | E | 0.10 | 0.30 |
| B | 1.80 | 2.00 | F | 0.80 | 1.20 |
| C | 1.55 | 1.25 | G | 0.35 | 0.85 |
| D | 3.50 | 3.90 | | | |

PACKAGE INFORMATION

| Package | MPQ | Leader Size |
|-----------|------|-------------|
| SOD-123FL | 2.5K | 7' inch |

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

| Parameter | Symbol | Part Number | | | | | | Unit |
|--|------------|-------------|----------|----------|----------|----------|-----------|------|
| | | SM 220FL | SM 230FL | SM 240FL | SM 260FL | SM 280FL | SM 2100FL | |
| Maximum Recurrent Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 60 | 80 | 100 | V |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 42 | 56 | 70 | V |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 60 | 80 | 100 | V |
| Maximum Instantaneous Forward Voltage @ $I_{FM} = 2.0A$ | V_F | 0.50 | 0.55 | | 0.72 | 0.85 | | V |
| Maximum Average Forward Rectified Current @ $T_J = 90^\circ C$ | $I_{(AV)}$ | 2.0 | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 40 | | | | | | A |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | 0.3 | | | | | | mA |
| Typical Junction Capacitance | C_J | 30 | | | | | | pF |
| Operating Temperature Range | T_J | -55~125 | | | | | | °C |
| Storage Temperature Range | T_{STG} | -55~150 | | | | | | °C |

Notes: <http://www.secos.com/>

1. Measured at $f=1.0MHz$, $V_R=4.0V$

Any changes of specification will not be informed individually.

CHARACTERISTIC CURVES

FIG.1 – FORWARD DERATING CURVE

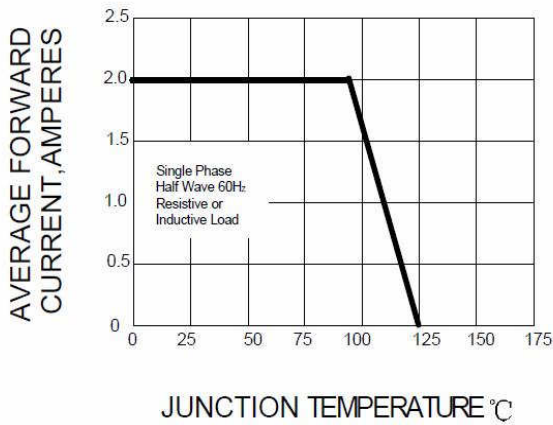


FIG.2– PEAK FORWARD SURGE CURRENT

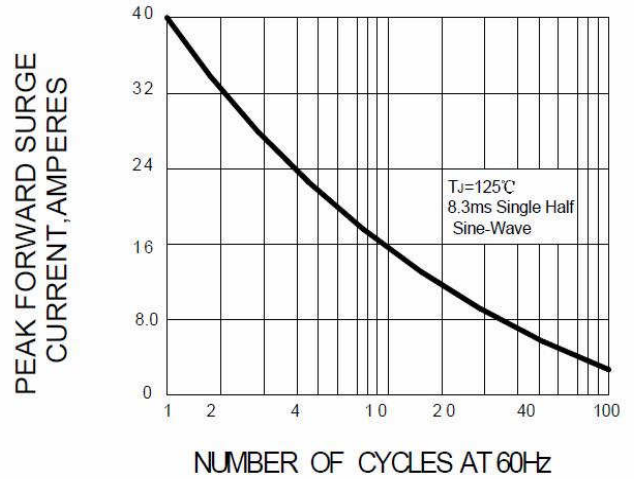


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

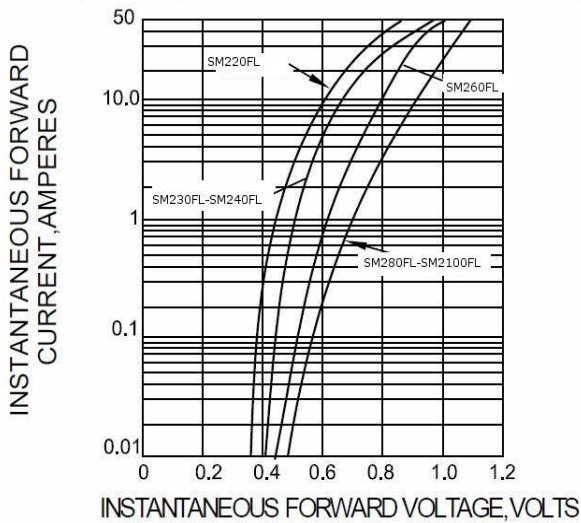


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

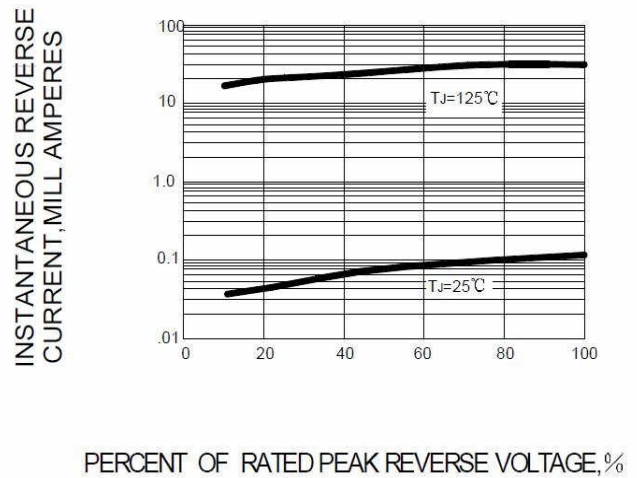


FIG.5–TYPICAL JUNCTION CAPACITANCE

