

Surface Mount Schottky Rectifier

Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

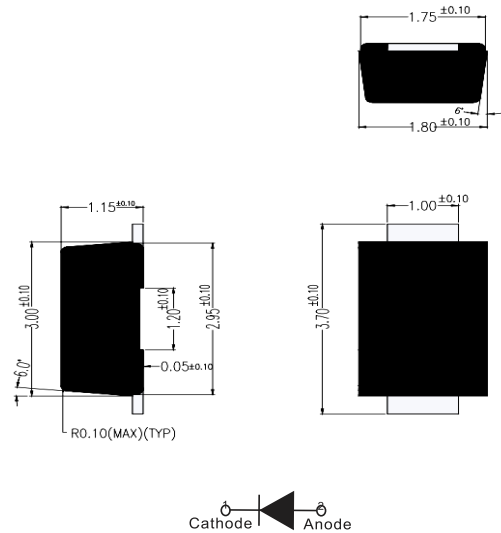
For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Date

- **Package:** SOD-123FL
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

SOD-123FL

Unit : inch(mm)



■Maximum Ratings (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | S22FL | S23FL | S24FL | S25FL | S26FL | S28FL | S210FL | S215FL | S220FL | |
|---|------------------|------|-----------|-------|-------|-------|-------|-----------|--------|--------|--------|--|
| Repetitive peak reverse voltage | VRRM | V | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | |
| Average rectified output current @60Hz sine wave, Resistance load, T _a (FIG.1) | I _O | A | 2.0 | | | | | | | | | |
| Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T _j =25°C | I _{FSM} | A | 40 | | | | | | | | | |
| Storage temperature | T _{stg} | °C | -55 ~+150 | | | | | | | | | |
| Junction temperature | T _j | °C | -55 ~+150 | | | | | -55 ~+175 | | | | |

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | S22FL | S23FL | S24FL | S25FL | S26FL | S28FL | S210FL | S215FL | S220FL |
|--|------------------|------|-----------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | I _{FM} =2.0A | 0.55 | | | 0.70 | | 0.85 | | 0.95 | |
| Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM | I _{RRM} | mA | T _a =25°C | 0.50 | | | | | 0.10 | | | |
| | | | T _a =100°C | 10 | | | | | 5 | | | |

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | S22FL | S23FL | S24FL | S25FL | S26FL | S28FL | S210FL | S215FL | S220FL |
|--------------------|-------------------|------|------------------|-------|-------|-------|-------|-------|--------|--------|--------|
| Thermal Resistance | R _{θJ-A} | °C/W | 70 ¹⁾ | | | | | | | | |
| | R _{θJ-L} | | 20 ¹⁾ | | | | | | | | |

Note:
(1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

■ Characteristics (Typical)

FIG1: I_o-T_L Curve

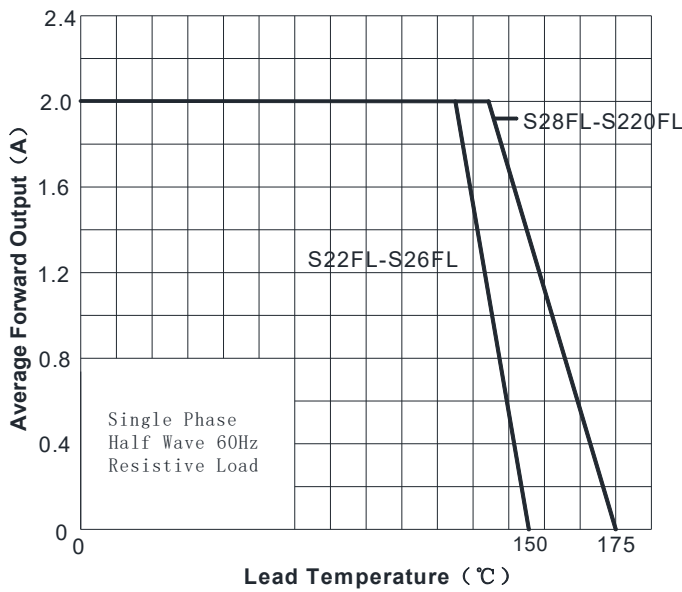


FIG2: Surge Forward Current Capability

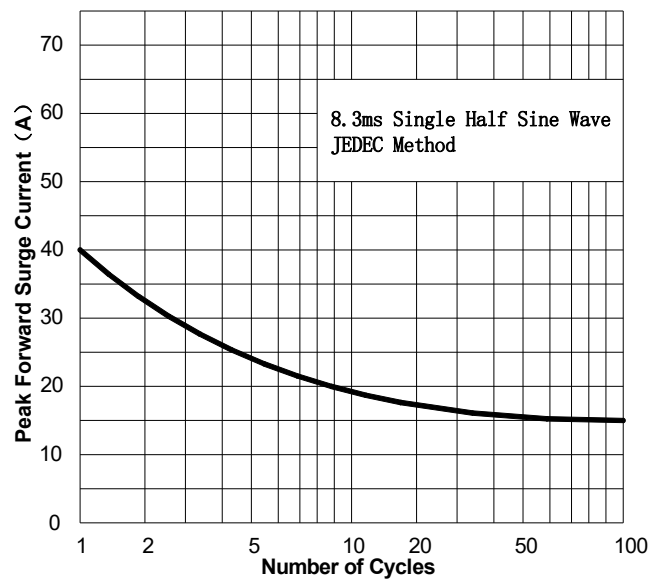


FIG3: Forward Voltage

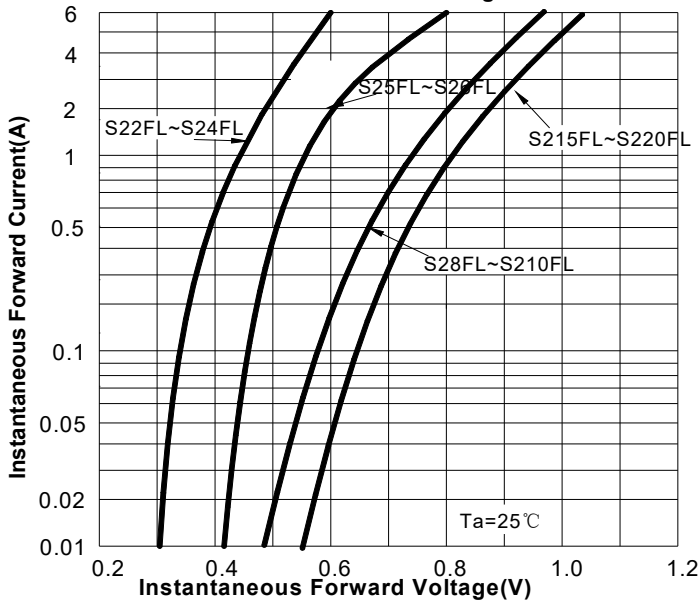


FIG4: Typical Reverse Characteristics

