

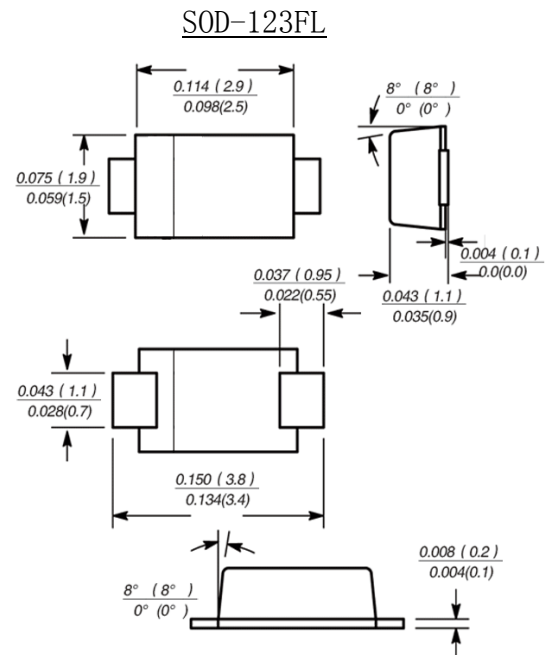
0.7A SURFACE MOUNT GENERAL PURPOSE SILICON RECTIFIER

Features

- Glass passivated device
- Ideal for surface mounted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:
260 C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

- Terminal: : Plated axial leads, solderable per MIL-STD-750, Method 2026
- Case: : JEDEC SOD-123FL molded plastic body over passivated chip
- Polarity: : Color band denotes cathode end
- Mounting Position: Any



Dimensions in millimetre

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

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

| Parameter | Symbol | S07A SA | S07B SB | S07D SD | S07G SG | S07J SJ | S07K SK | S07M SM | UNIT |
|--------------------------------------------------------------------------------------------------------------------|-----------------|--------------|------------|------------|------------|------------|------------|------------|------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average forward output rectified current at $T_A=65^\circ\text{C}$ (NOTE 1) | $I(AV)$ | 0.7 | | | | | | | A |
| Peak forward surge current 8.3ms single sine-wave superimposed on rated load (JEDEC Method) $T_L=25^\circ\text{C}$ | I_{FSM} | 25 | | | | | | | A |
| Maximum instantaneous forward voltage drop per diode @1.0A | V_F | 1.1 | | | | | | | V |
| Maximum DC reverse current at $T_A=25^\circ\text{C}$ rated DC blocking voltage per leg $T_A=125^\circ\text{C}$ | I_R | 10.0 50.0 | | | | | | | μA |
| Typical junction capacitance (NOTE 2) | C_J | 4 | | | | | | | pF |
| Typical thermal resistance (NOTE 3) | $R_{\theta JA}$ | 180 | | | | | | | K/W |
| Operating junction and storage temperature range | T_J, T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

Note: 1.1. Averaged over any 20ms period.

2. Measured at 1MHZ and applied reverse voltage of 4.0V D.C.

3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

RS07A-RS07M

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FIG.1 - TYPICAL FORWARD CHARACTERISTIC

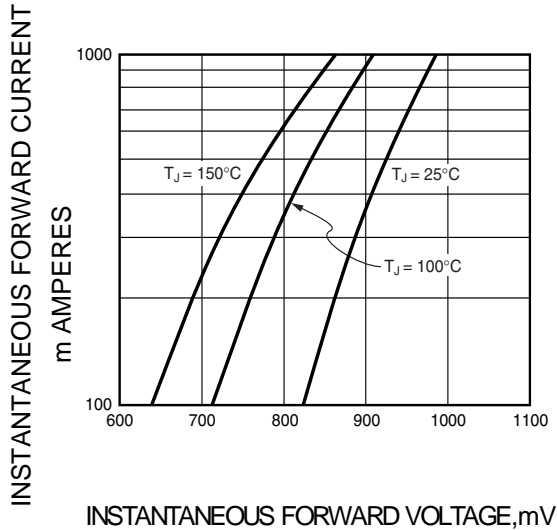


FIG.2 - TYPICAL JUNCTION CAPACITANCE

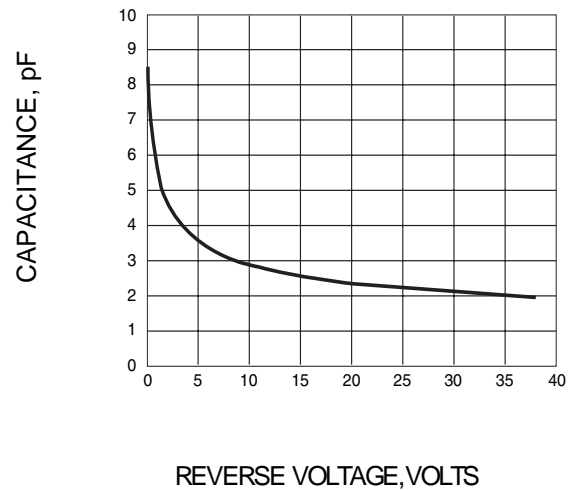


FIG.3 - TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

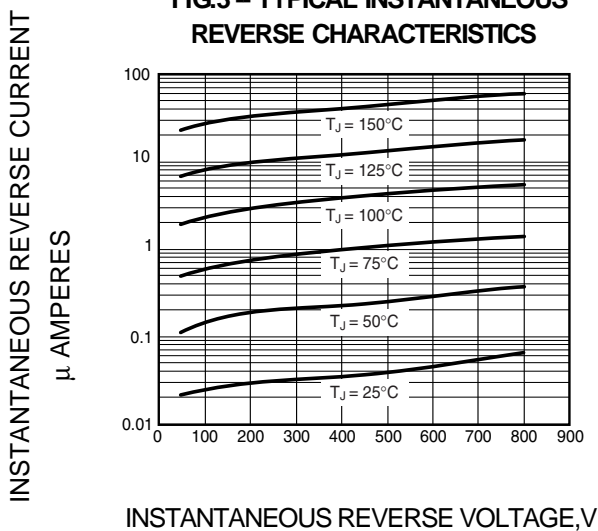


FIG.4 - FORWARD DERATING CURVE

