

S01M - S07M

PRV : 50 - 1000 Volts Io : 1.0 Ampere

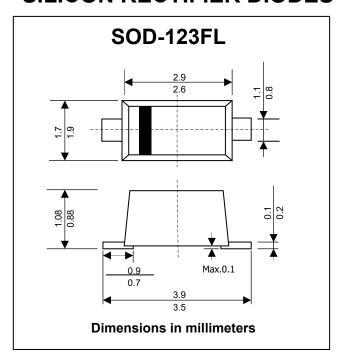
FEATURES:

- * Glass passivated junction chip
- * High current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Pb / RoHS Free

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
- * Weight: 0.006 ounces, 0.02 gram

GLASS PASSIVATED JUNCTION SILICON RECTIFIER DIODES



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at $25\,^{\circ}$ C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| RATING | SYMBOL | S01M | S02M | S03M | S04M | S05M | S06M | S07M | 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 Current 0.375"(9.5mm) Lead Length Ta = 75 °C | I _{F(AV)} | 1.0 | | | | | | | Α |
| Maximum Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method) | I _{FSM} | 25 | | | | | | | А |
| Maximum Forward Voltage at I _F = 1.0 Amp. | V_{F} | 1.1 | | | | | | | V |
| Maximum DC Reverse Current Ta = 25 °C | I _R | 5.0 | | | | | | | μA |
| at rated DC Blocking Voltage Ta = 125 °C | I _{R(H)} | 50 | | | | | | | μA |
| Typical Junction Capacitance (Note1) | CJ | 4 | | | | | | | pF |
| Typical Thermal Resistance (Note2) | $R_{\Theta JA}$ | 180 | | | | | | | °C/W |
| Junction Temperature Range | T _J | - 55 to + 150 | | | | | | | °C |
| Storage Temperature Range | T _{STG} | - 55 to + 150 | | | | | | | °C |

Notes: (1) Measured at 1.0 MHz and applied reverse voltage of 4.0VDC

(2) Thermal resistance from Junction to Ambient at FR-4 Epoxy PCB with copper mounting pad area of 2.2 mm².

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RATING AND CHARACTERISTIC CURVES (S01M - S07M)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

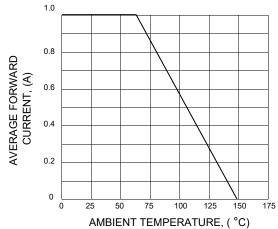


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

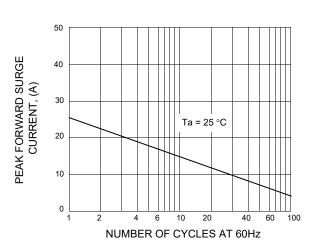


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

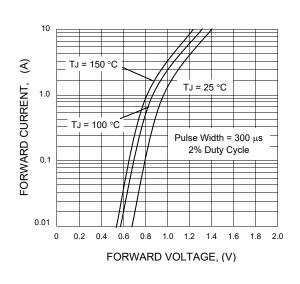
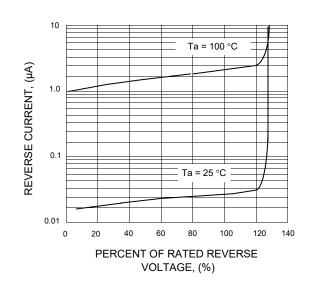


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



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