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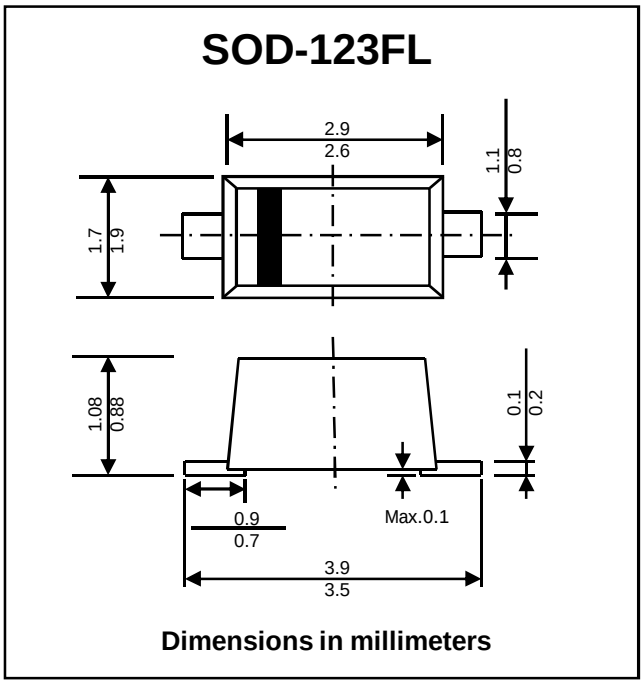
N1J

SILICON RECTIFIER DIODE

PRV : 600 Volts
Io : 1.0 Ampere



FEATURES :

* High current capability
* High surge 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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °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	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Maximum RMS Voltage	V_{RMS}	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Maximum Average Forward Current at T_a = 65 °C	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	25	A
Maximum Forward Voltage at I_F = 1.0 Amp.	V_F	1.1	V
Maximum DC Reverse Current T_a = 25 °C at rated DC Blocking Voltage T_a = 125 °C	I_R	10 50	μA
Typical Junction Capacitance (Note1)	C_J	4	pF
Typical Thermal Resistance (Note2)	RθJA	180	°C/W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 150	°C

Notes :

(1) Measured at 1.0 MHz and applied reverse voltage of 4.0V_{DC}

(2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

RATING AND CHARACTERISTIC CURVES (N1J)

FIG.1 - TYPICAL FORWARD CHARACTERISTICS

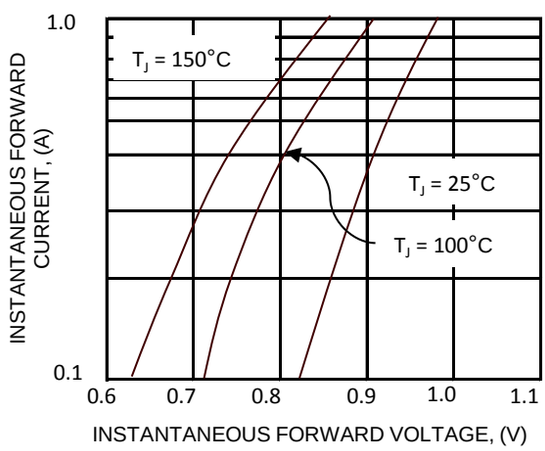


FIG.2 - TYPICAL JUNCTION CAPACITANCE

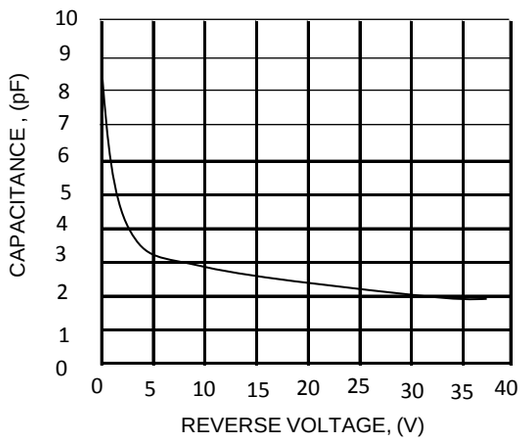


FIG.3 - TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

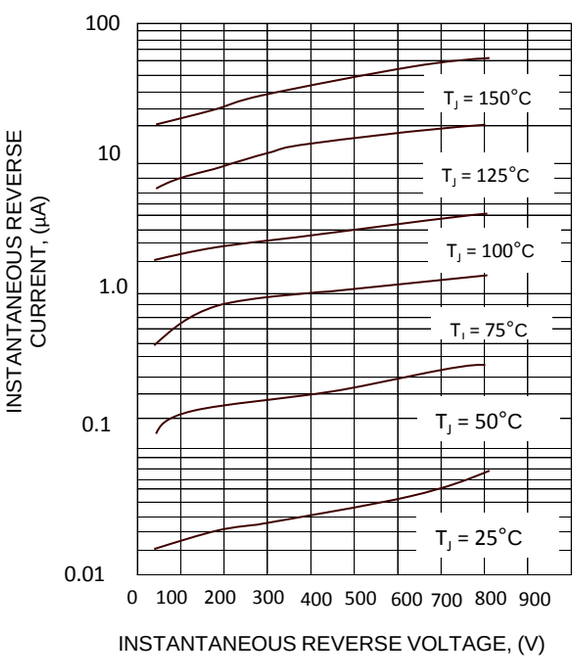


FIG.4 - FORWARD DERATING CURVE