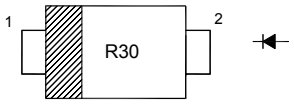
S1AW THRU S1MW

Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 50 to 1000 V
Forward Current - 1 A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: R30
Simplified outline SOD-123FL and symbol

Maximum Ratings and Electrical characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	S1AW	S1BW	S1DW	S1GW	S1JW	S1KW	S1MW	Units
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 Rectified Current at T_a = 65°C	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.1							V
Maximum DC Reverse Current T_a = 25℃ at Rated DC Blocking Voltage T_a = 125℃	I_R	10 50							μA
Typical Junction Capacitance [1]	C_j	4							pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	180							°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150							°C

[1] Measured at 1 MHz and applied reverse voltage of 4 V D.C

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

FIG.1 –TYPICAL FORWARD CHARACTERISTIC

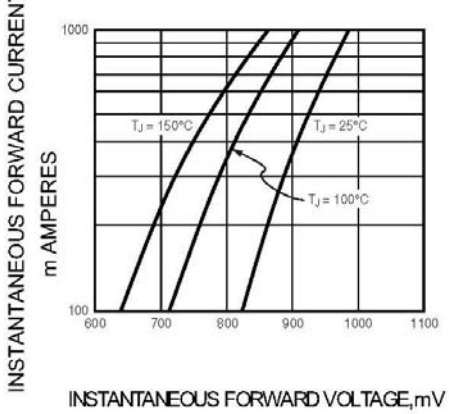


FIG.2 – TYPICAL JUNCTION CAPACITANCE

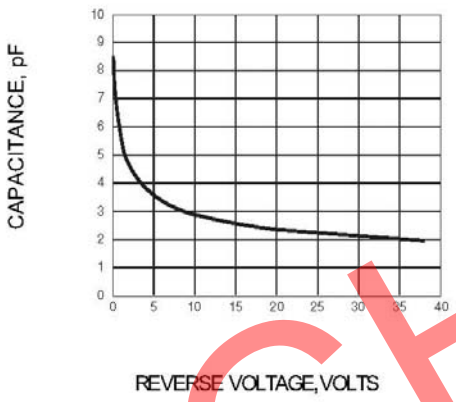


FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

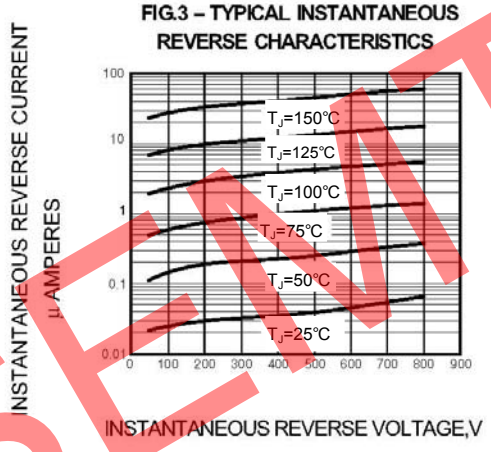
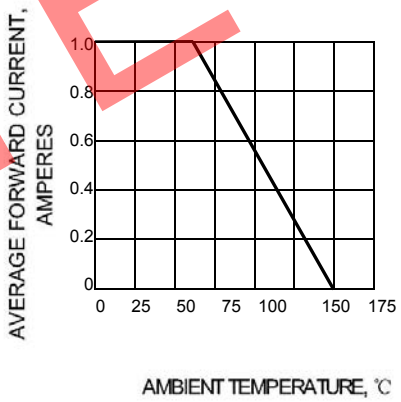
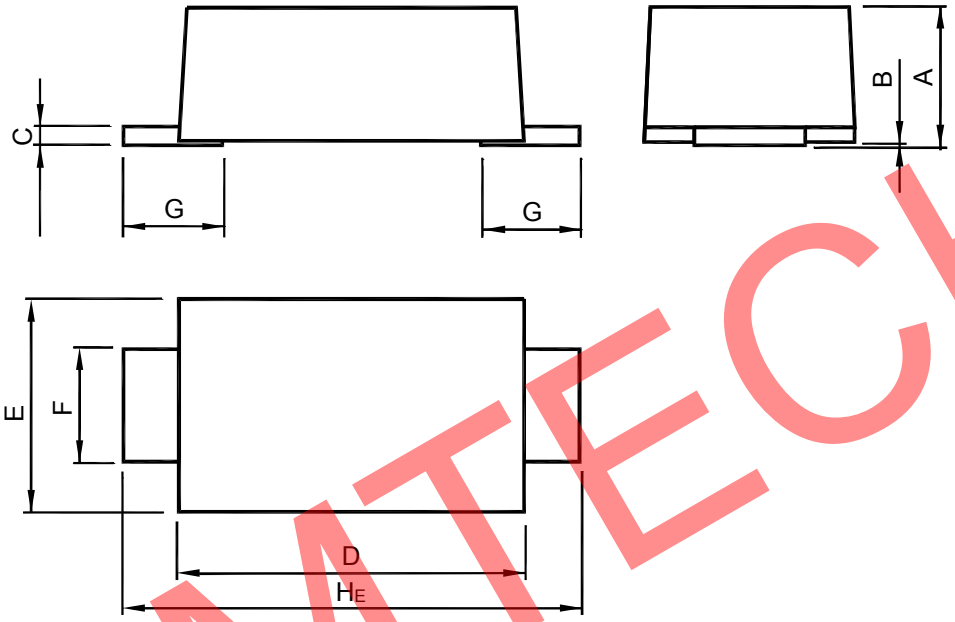


FIG.4 – FORWARD DERATING CURVE



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-123FL**



UNIT	A	B	C	D	E	F	G	H_E
mm	1.08	0.1	0.2	2.9	1.9	1.1	0.9	3.9
	0.88	0	0.1	2.6	1.7	0.8	0.7	3.5