

1N4007W-H

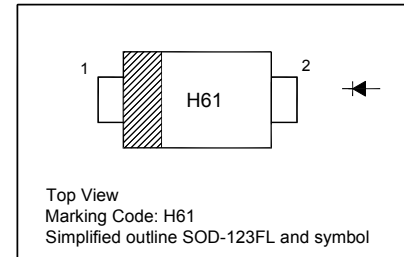
Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 1600 V

Forward Current - 1 A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1600	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1600	V
Maximum Average Forward Rectified Current at $T_a = 65^\circ\text{C}$	$I_{F(AV)}$	1	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	25	A
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5 50	μA
Typical Junction Capacitance ¹⁾	C_j	4	pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	180	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to + 150	$^\circ\text{C}$

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

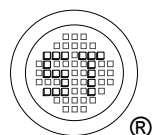


FIG.1 – TYPICAL FORWARD CHARACTERISTIC

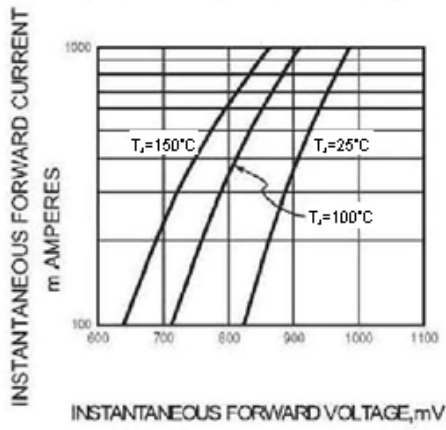


FIG.2 – TYPICAL JUNCTION CAPACITANCE

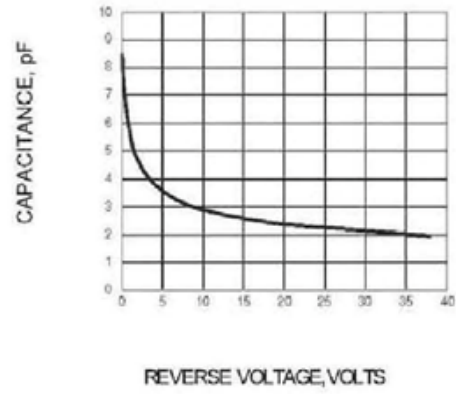
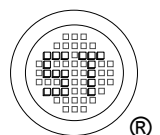
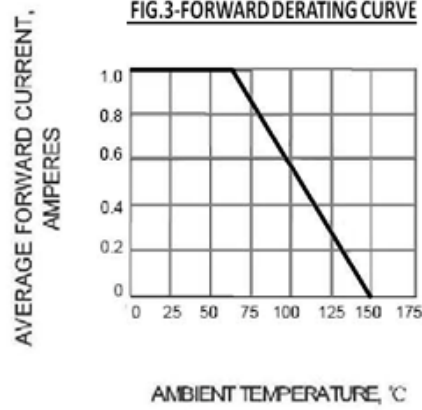


FIG.3-FORWARD DERATING CURVE

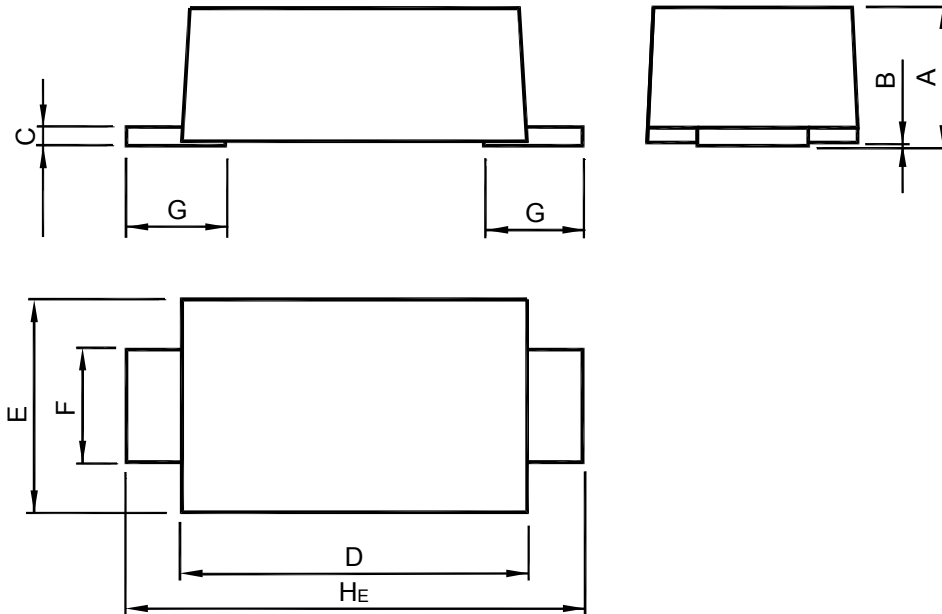


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PACKAGE OUTLINE

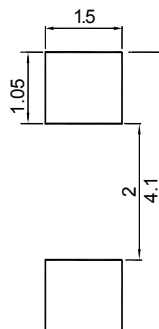
Plastic surface mounted package; 2 leads

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

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-123FL	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

