

Silicon Epitaxial Planar Switching Diode

FEATURES:

Fast switching

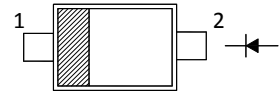
Low forward voltage

Small total capacitance

SPECIFICATION:

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-123 and
symbol

Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$)

Parameter		Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_F(AV)$	150	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	0.5 1 4	A
Power Dissipation	P_{tot}	400	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	312	$^\circ\text{C}/\text{W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_A = 25^\circ\text{C}$

Parameter		Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1 \mu\text{A}$	$V_{(BR)R}$	75	-	V
Forward Voltage at $I_F = 1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 50 \text{ mA}$ at $I_F = 150 \text{ mA}$	V_F	- - - -	0.715 0.855 1 1.25	V
Peak Reverse Current at $V_R = 75 \text{ V}$ at $V_R = 20 \text{ V}$ at $V_R = 75 \text{ V}$, $T_j = 150^\circ\text{C}$ at $V_R = 25 \text{ V}$, $T_j = 150^\circ\text{C}$	I_R	- - - -	1 25 50 30	μA nA μA μA
Total Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$	C_T	-	2	pF
Reverse Recovery Time at $I_F = 10 \text{ mA}$, $I_{rr} = 1 \text{ mA}$, $V_R = 6 \text{ V}$, $R_L = 100 \Omega$	t_{rr}	-	4	ns

Art. Nr.

RND 1N4148W

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