

1N4148WSGH

Silicon Epitaxial Planar Switching Diode

Lead free product

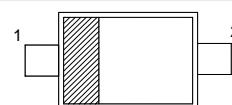
Halogen-free type

PINNING

Features

- Fast switching speed
- Ultra-small surface mount package
- For general purpose switching applications
- High conductance

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-323 and symbol

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

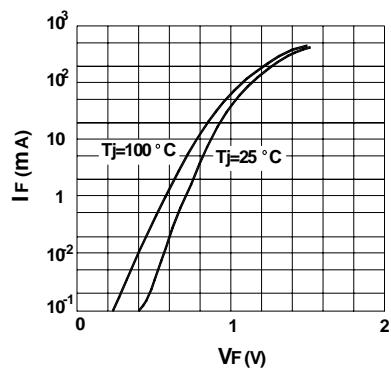
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Surge Forward Current ($t < 1 \text{ s}, T_j = 25^\circ\text{C}$)	I_{FSM}	350	mA
Power Dissipation	P_{tot}	200	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	625	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

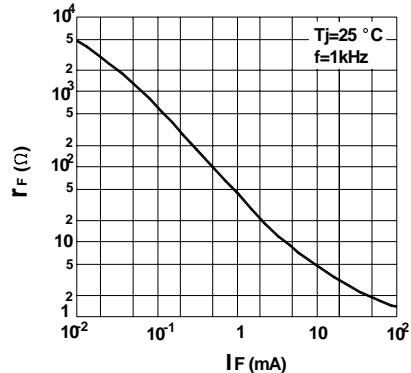
Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 10 \text{ mA}$	V_F	1	V
Reverse Current at $V_R = 20 \text{ V}$ at $V_R = 75 \text{ V}$ at $V_R = 20 \text{ V}, T_J = 150^\circ\text{C}$	I_R	25 5 50	nA μA μA
Total Capacitance at $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	C_{tot}	4	pF
Reverse Recovery Time at $I_F = 10 \text{ mA}$ to $I_R = 1 \text{ mA}, V_R = 6 \text{ V}, R_L = 100 \Omega$	t_{rr}	4	ns



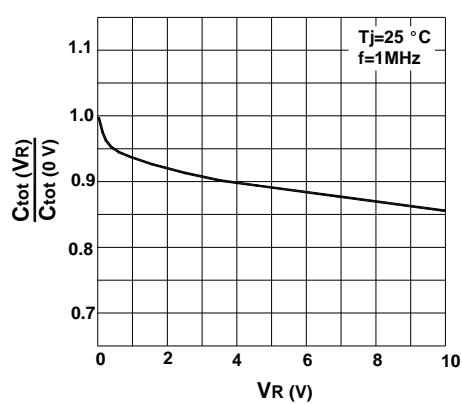
Forward characteristics



Dynamic forward resistance
vs. forward current



Reverse capacitance vs. reverse voltage



Ammissible repetitive peak forward current vs. pulse duration

