1N4148WTGH

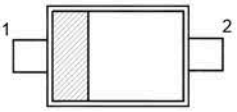
Silicon Epitaxial Planar Switching Diode

Lead free product

Halogen-free type

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-523 and symbol

Features

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

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	125	mA
Forward Continuous Current	I_{FM}	250	mA
Non-repetitive Peak Forward Surge Current at t = 1 µs at t = 100 ms	I_{FSM}	2 1	A
Power Dissipation	P_{tot}	150	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	833	°C/W
Operating Temperature Range	T_j	- 65 to + 150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 1 µA	$V_{(BR)R}$	75	-	V
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	V_F	 - - - -	 0.715 0.855 1 1.25	V
Peak Reverse Current at V_R = 75 V at V_R = 20 V at V_R = 75 V, T_J = 150 °C at V_R = 25 V, T_J = 150 °C	I_R	 - - - -	 1 25 50 30	 µA nA µA µA
Total Capacitance at V_R = 0 V, f = 1 MHz	C_T	-	2	pF
Reverse Recovery Time at I_{rr} = 0.1 X I_R, I_F = I_R = 10 mA, R_L = 100 Ω	t_{rr}	-	4	ns

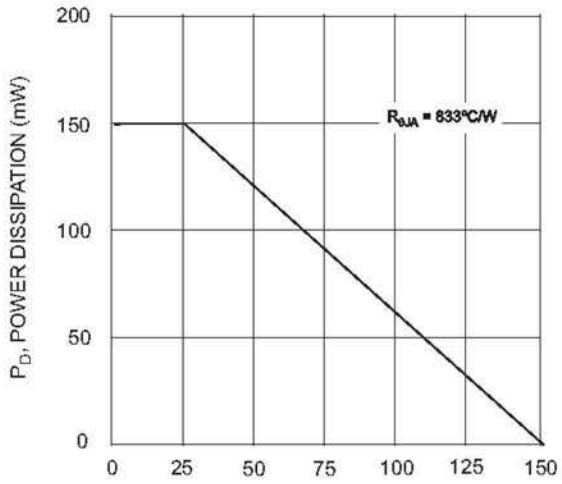


Fig. 1 Derating Curve

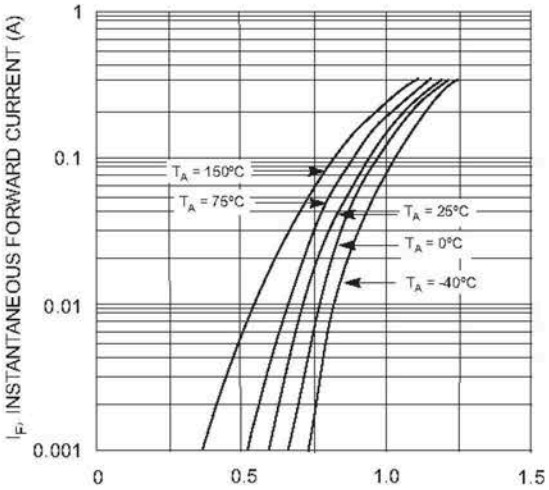


Fig. 2 Forward Characteristics

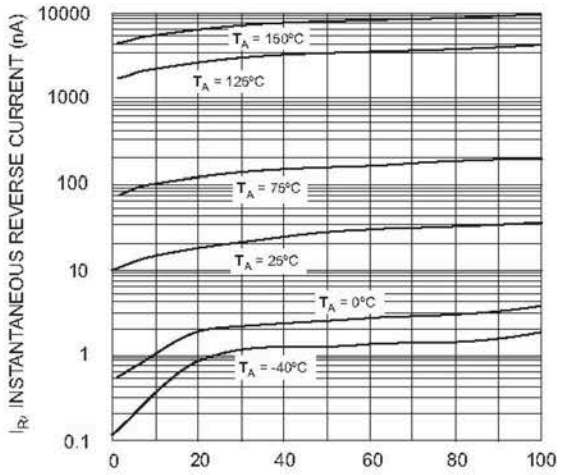


Fig. 3 Typical Reverse Characteristics

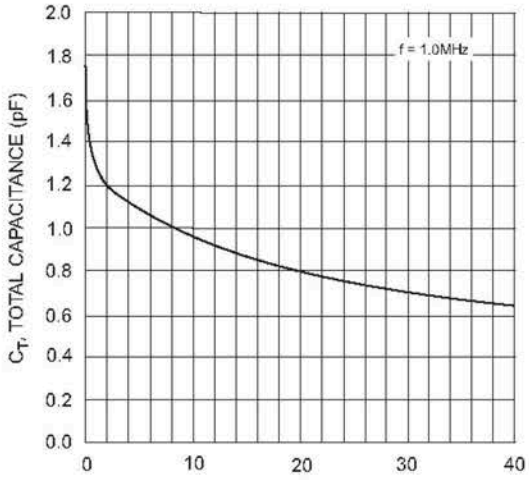


Fig. 4 Typical Capacitance vs. Reverse Voltage