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1N4148W

High Speed Switching Diode 200mW

Features

- Fast switching speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For general purpose switching applications
- High conductance
- Marking Code: T4

Maximum Ratings

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band
- Weight: 0.01 grams (approx.)

Maximum Ratings @ 25°C Unless Otherwise Specified

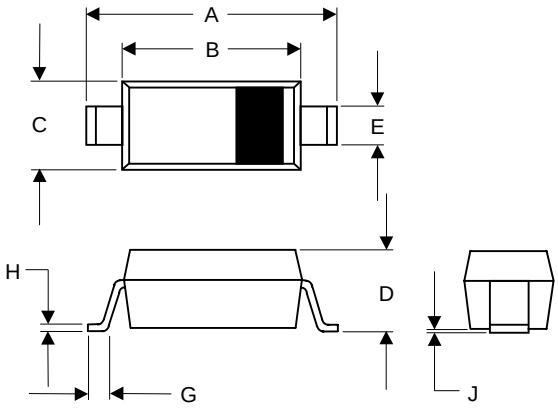
Reverse Voltage	V_R	75	V
Peak Reverse Voltage	V_{RM}	100	V
Average Rectified Current	$I_{F(AV)}$	150	mA
Peak Forward Surge Current t<1S	I_{FSM}	350	mA
Power Dissipation	P_D	200	mW
Thermal Resistance	R_{JA}	650	K/W
Operation/Storage Temp. Range	T_j, T_{STG}	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Maximum Instantaneous Forward Voltage	V_F	1.0V	I_{FM} = 10mA; T_J = 25°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	25nA 50µA 5.0uA	V_R=20Volts T_J = 25°C T_J = 150°C V_R=75V, T_J=25°C
Typical Junction Capacitance	C_J	4pF	V_F=V_R=0V
Maximum Voltage Rise when Switching on (tested with 50mA pulse)	V_{fr}	2.5V	Tp=0.1us, rise time<30ns, fp=5 to 100kHz
Maximum Reverse Recovery Time	T_{rr}	4nS	I_F=10mA V_R = 6V R_L=100Ω
Minimum Rectification Efficiency	η	0.4	f=100MHz, V_{RF}=2.0V

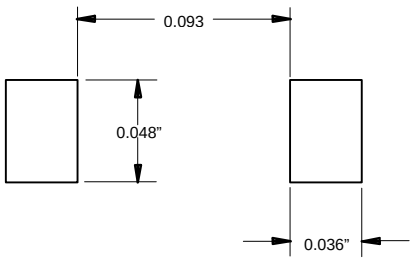
* Valid provided that terminals are kept at ambient temperature

SOD123



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

SUGGESTED SOLDER PAD LAYOUT



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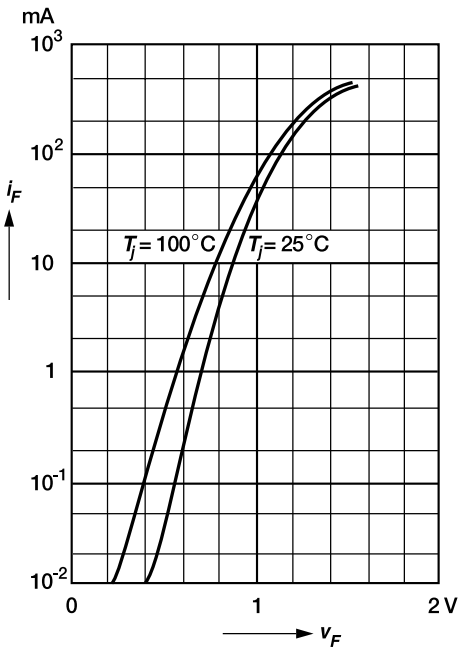
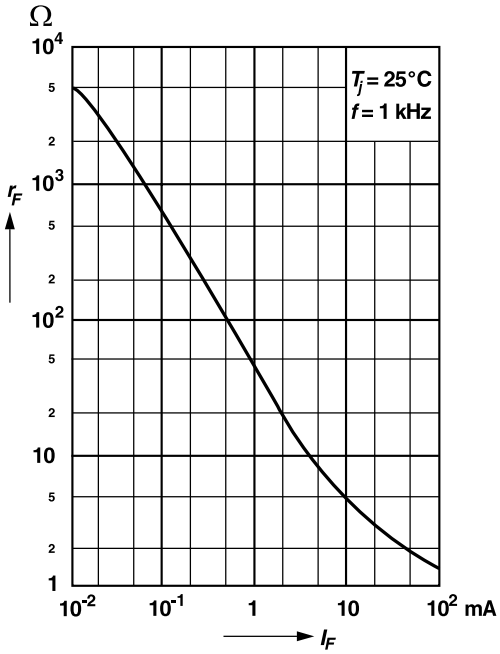
Forward characteristics

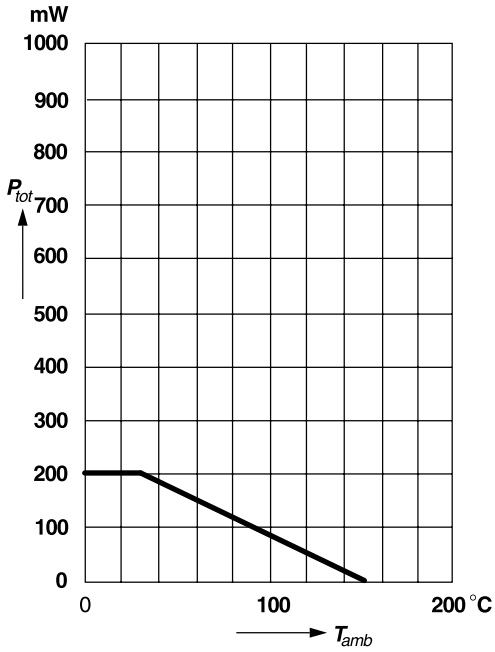


Dynamic forward resistance versus forward current

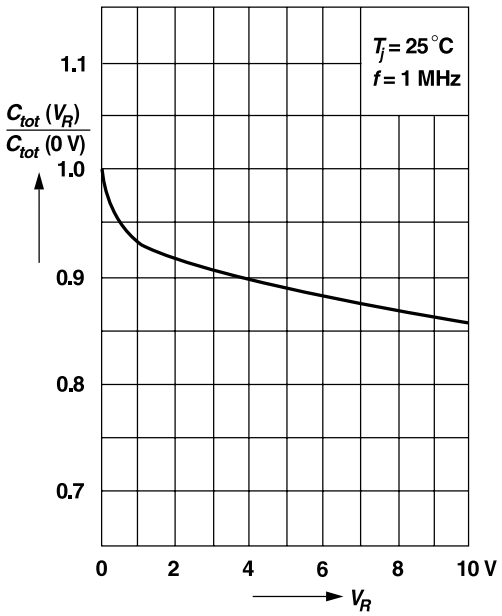


Admissible power dissipation versus ambient temperature

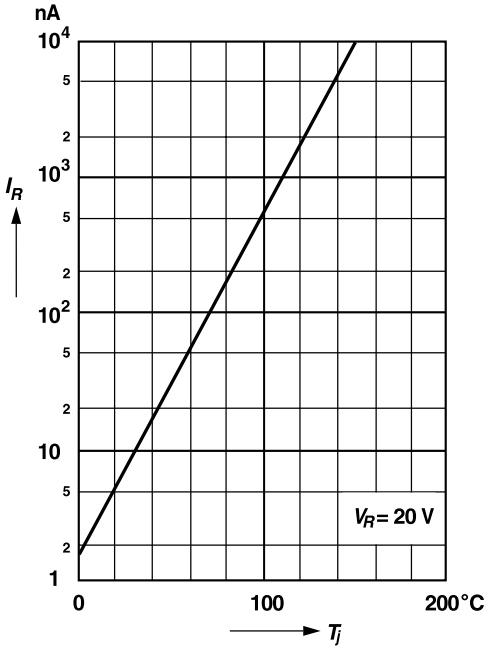
For conditions, see footnote in table "Absolute Maximum Ratings"



Relative capacitance versus reverse voltage



Leakage current
versus junction temperature



Admissible repetitive peak forward current versus pulse duration

For conditions, see footnote in table "Absolute Maximum Ratings"