



Micro Commercial Components

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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

Mechanical Data

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band
- Weight: 0.01 grams (approx.)
- Marking Code: T4,A2

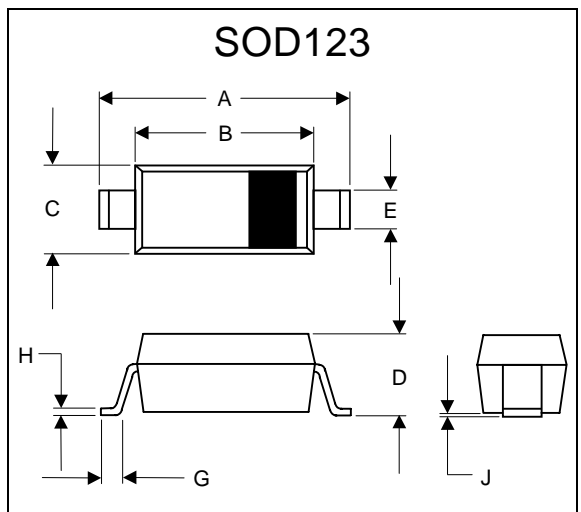
Maximum Ratings @ 25°C Unless Otherwise Specified

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}	1.00	A
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

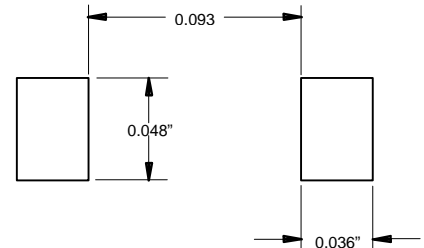
Maximum Instantaneous Forward Voltage	V_F	1.0V	$I_{FM} = 10mA;$ $T_J = 25°C^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	25nA 50µA 5.0uA	$V_R=20Volts$ $T_J = 25°C$ $T_J = 150°C$ $V_R=75V, T_J=25°C$
Typical Junction Capacitance	C_J	4pF	$V_F=V_R=0V$
Maximum Voltage Rise when Switching on (tested with 50mA pulse)	V_{fr}	2.5V	$T_p=0.1us,$ 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

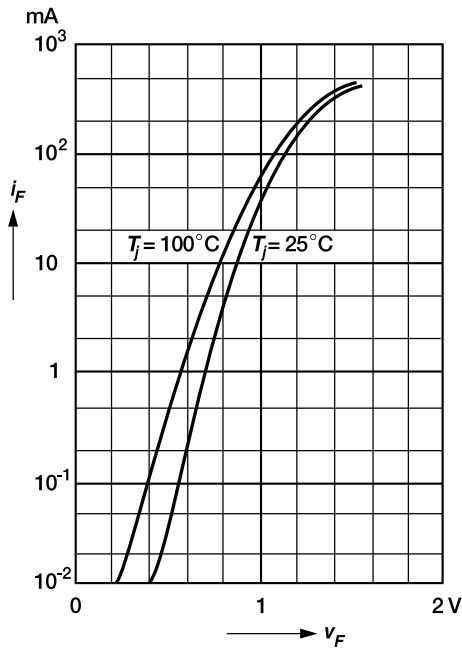


DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

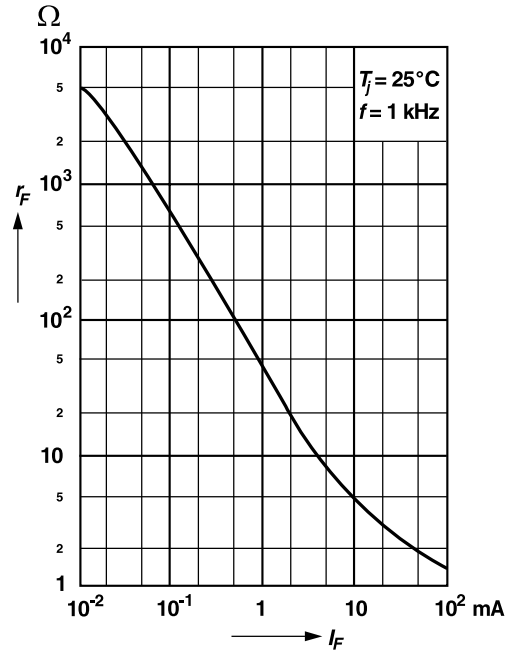
SUGGESTED SOLDER PAD LAYOUT



Forward characteristics

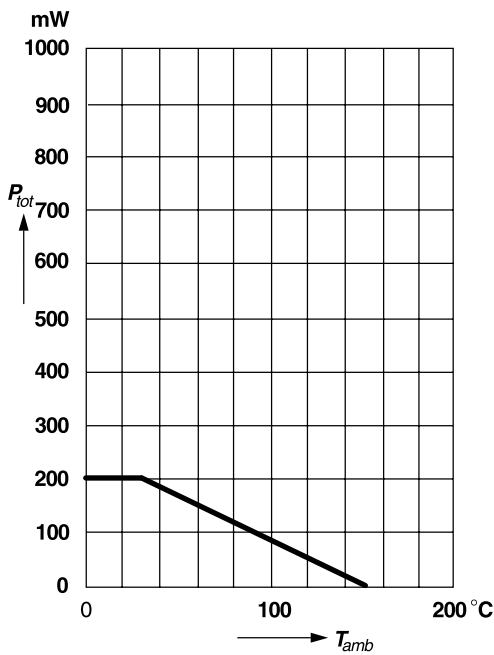


Dynamic forward resistance versus forward current

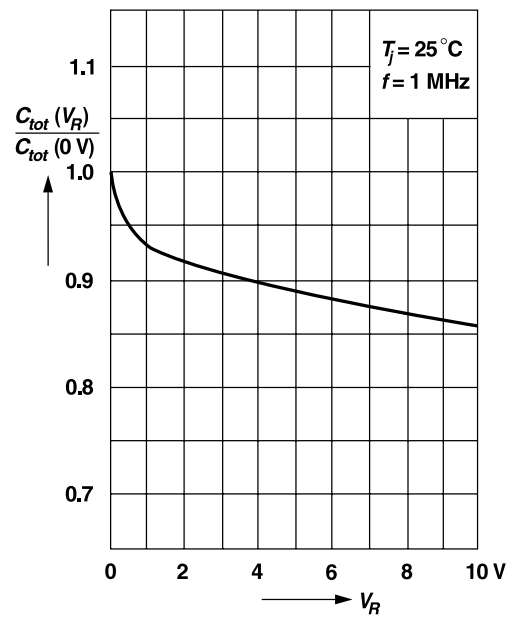


Admissible power dissipation versus ambient temperature

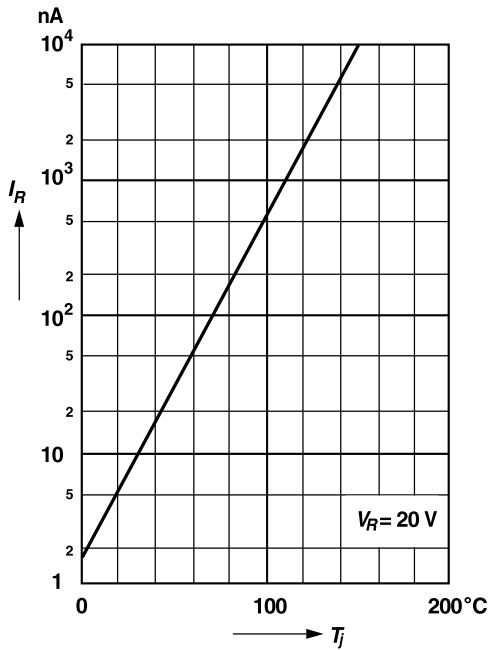
For conditions, see footnote in table "Absolute Maximum Ratings"



Relative capacitance versus reverse voltage

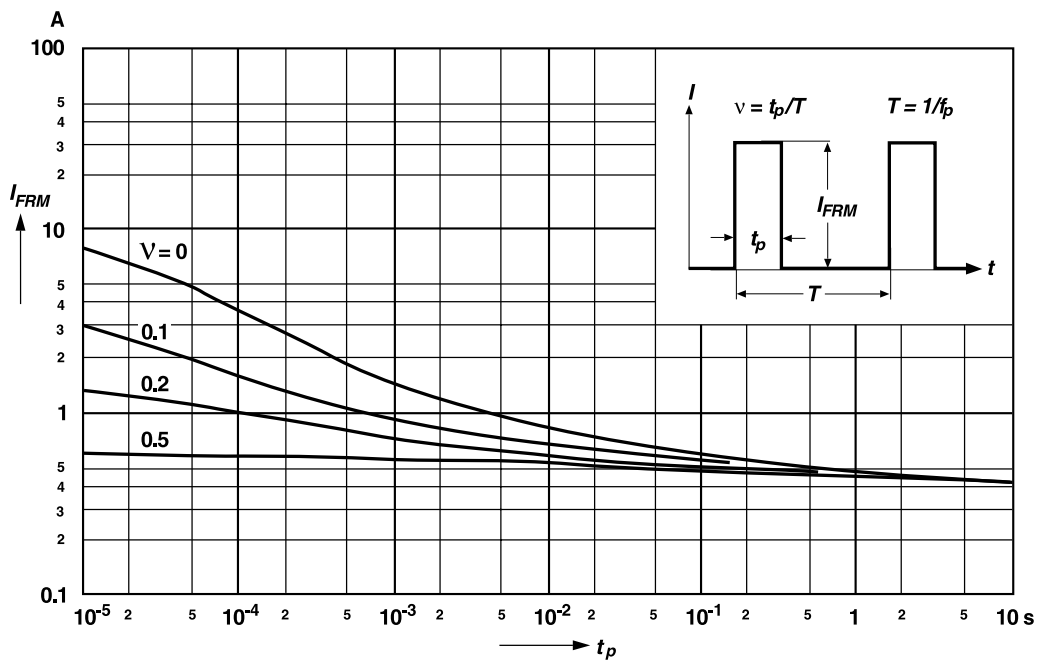


Leakage current versus junction temperature



Admissible repetitive peak forward current versus pulse duration

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





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