# Diode





# Features:



- Fast switching device (T<sub>RR</sub><4 nS)
- General purpose diodes
- Flat lead SOD-123 small outline plastic package
- Surface device type mounting
- Moisture sensitivity level 1
- Clip bonding construction, good thermal capability
- Pb free version
- Matte tin (Sn) lead finish with nickel (Ni) underplate
- Band indicates cathode

SOD-123F

Dimensions : Inches (Millimetres)

#### **Maximum Ratings at Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified

### **Maximum Ratings**

Type Number	Symbol	Value	Units	
Power Dissipation	P <sub>d</sub>	400	mW	
Non-Repetitive Peak Reverse Voltage	V <sub>RSM</sub>	100	V	
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	75		
Repetitive Peak Forward Current	I <sub>FRM</sub>	300	- mA	
Continuous Forward Current	Ι <sub>ο</sub>	150		
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to + 150	°C	



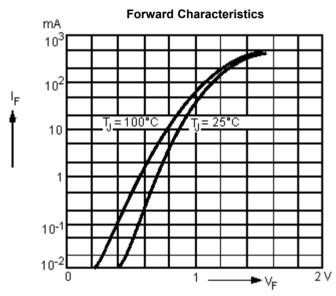


# **Electrical Characteristics**

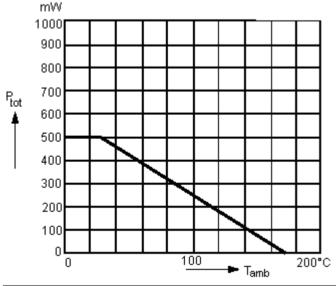
Туре N	umber	Symbol	Minimum	Maximum	Units
Breakdown Voltage	I <sub>R</sub> = 100 μA I <sub>R</sub> = 5 μA	B <sub>V</sub>	100 75	-	V
Forward Voltage 1N4148W	I <sub>F</sub> = 10 mA	V <sub>F</sub>	-	1	V
Reverse Leakage Current	V <sub>R</sub> = 20 V V <sub>R</sub> = 75 V	I <sub>R</sub>	-	25 5	nA μA
Junction Capacitance	V <sub>R</sub> = 0, f = 1 MHz	Cj	-	4	pF
Reverse Recovery Time (Note	e 1)	t <sub>rr</sub>	-	- 4	nS

Notes : 1. Reverse recovery test conditions : I\_F = 10 mA, I\_R = 60 mA, R\_L = 100  $\Omega,$  I\_{RR} = 1 mA

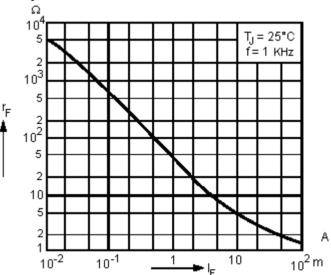
# **Ratings and Characteristic Curves (1N4148W)**



Admissible Power Dissipation vs. Ambient Temperature

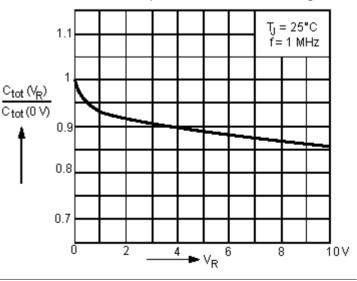


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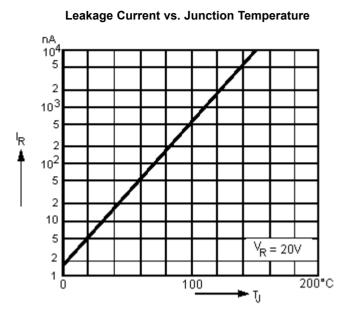
Dynamic Forward Resistance vs. Forward Current

Reverse Capacitance vs. Reverse Voltage

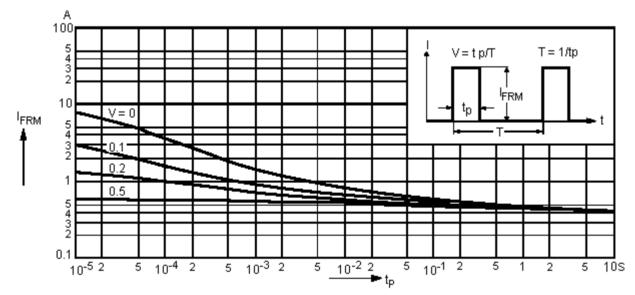








#### Admissible Repetitive Peak Forward Current vs. Pulse Duration



### **Part Number Table**

Description	Part Number		
Diode, SOD-123F, 75 V	1N4148W		

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