



## DESCRIPTION

The 1N4148W is available in SOD-123 Package.

## ORDERING INFORMATION

Package Type	Part Number
SOD-123	1N4148W
Note	3,000pcs/Reel
AiT provides all RoHS Compliant Products	

## FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance
- Available in SOD-123 Package

## MECHANICAL DATA

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Code only or Date Code and Type Code: T4
- Weight: 0.01 grams (approx.)

## PIN DESCRIPTION



Equivalent Circuit Diagram



## ABSOLUTE MAXIMUM RATINGS

@T<sub>A</sub> = 25°C unless otherwise specified

V <sub>RM</sub> , Non-Repetitive Peak Reverse Voltage	100V
V <sub>RRM</sub> , Peak Repetitive Reverse Voltage	75V
V <sub>RWM</sub> , Working Peak Reverse Voltage	75V
V <sub>R</sub> , DC Blocking Voltage	75V
V <sub>R(RMS)</sub> , RMS Reverse Voltage	53V
I <sub>FM</sub> , Forward Continuous Current <sup>NOTE1</sup>	
I <sub>O</sub> , Average Rectified Output Current <sup>NOTE1</sup>	150mA
I <sub>FSM</sub> , Non-Repetitive Peak Forward Surge Current	
@t = 1.0μs	2.0 A
@t = 1.0s	1.0 A
P <sub>d</sub> , Power Dissipation <sup>NOTE1</sup>	350mW
R <sub>θJA</sub> , Thermal Resistance Junction to Ambient Air <sup>NOTE1</sup>	357K/W
T <sub>J</sub> , T <sub>STG</sub> , Operating and Storage Temperature Range	-65°C to +150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

NOTE1: Valid provided that terminals are kept at ambient temperature.



## ELECTRICAL CHARACTERISTICS

T<sub>A</sub> = 25°C unless otherwise specified

Parameter	Symbol	Conditions	Min	Max	Unit
Maximum Forward Voltage	V <sub>FM</sub>	I <sub>F</sub> = 1.0mA	-	0.715	V
		I <sub>F</sub> = 10mA	-	0.855	
		I <sub>F</sub> = 50mA	-	1.0	
		I <sub>F</sub> = 150mA	-	1.25	
Maximum Peak Reverse Current	I <sub>RM</sub>	V <sub>R</sub> = 75V	-	1.0	μA
		V <sub>R</sub> = 75V, T <sub>J</sub> = 150°C	-	50	
		V <sub>R</sub> = 25V, T <sub>J</sub> = 150°C	-	30	
		V <sub>R</sub> = 20V	-	25	nA
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> = 0, f = 1.0MHz	-	2.0	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> = I <sub>R</sub> = 10mA, I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100Ω	-	4.0	ns



## TYPICAL CHARACTERISTICS

Fig. 1 Forward Characteristics

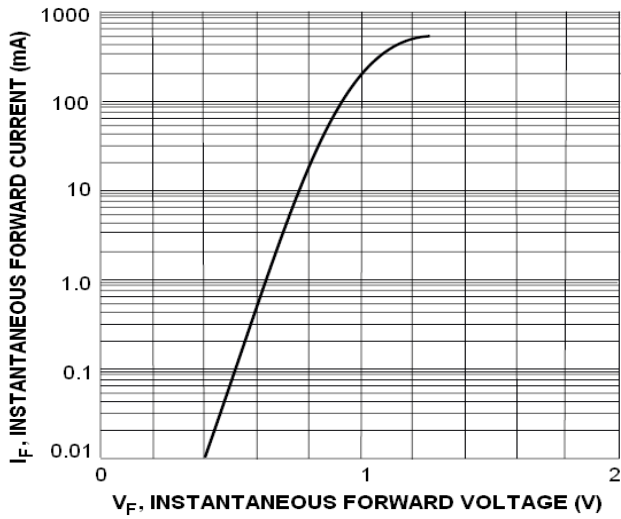
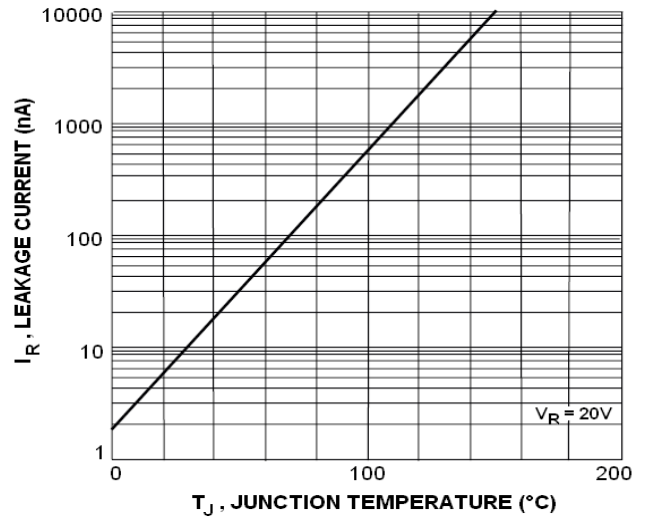


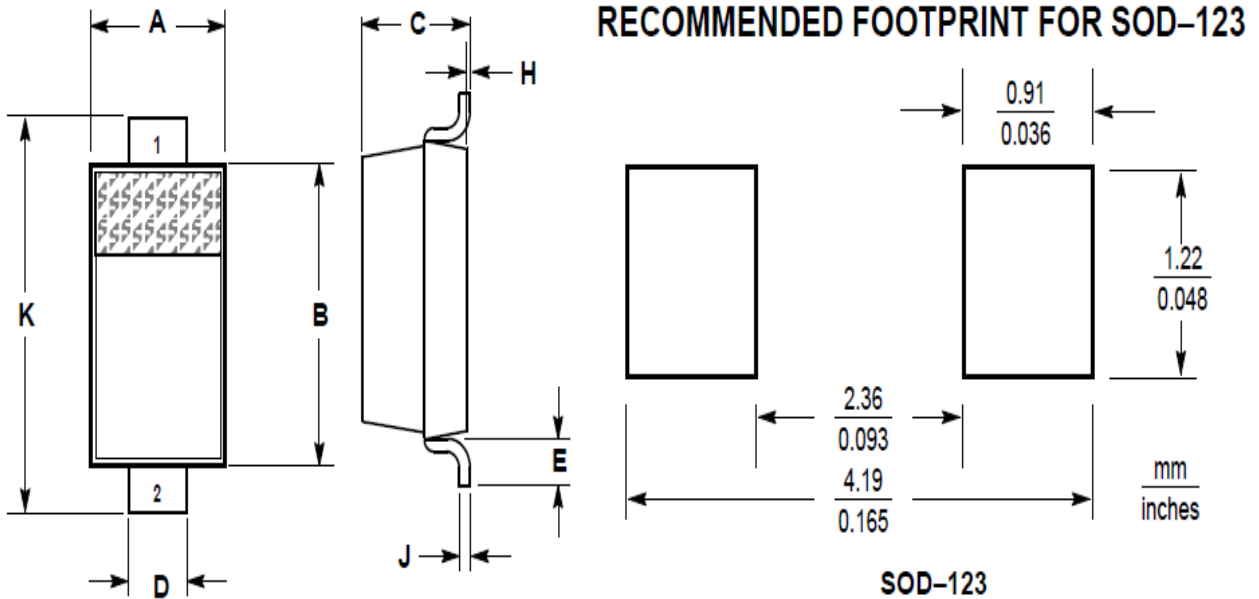
Fig. 2 Leakage Current vs Junction Temperature





**PACKAGE INFORMATION**

Dimension in SOD-123 Package (Unit: mm)



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.055	0.071	1.40	1.80
B	0.100	0.112	2.55	2.85
C	0.037	0.053	0.95	1.35
D	0.020	0.028	0.50	0.70
E	0.004	-	0.25	-
H	0.000	0.004	0.00	0.10
J	-	0.006	-	0.15
K	0.140	0.152	3.55	3.85



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