



DESCRIPTION

The 1N4148WS is available in SOD-323 Package Type

FEATURES

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance
- Available in SOD-323 Package

ORDERING INFORMATION

Package Type	Part Number
SOD-323	1N4148WS
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

MECHANICAL DATA

Case: SOD-323, Plastic

Plastic Material-UL Flammability Classification
Rating 94V-0

Moisture Sensitivity: Level 1 per J-STD-020A

Polarity: Cathode Band

Terminals: Solderable per MIL-STD-202,
Method 208

Weight: 0.004 grams (approx.)



ABSOLUTE MAXIMUM RATINGS

T_A=25°C, unless otherwise specified

V _{RM} , Non-Repetitive Peak Reverse Voltage	100V	
V _{RRM} , Peak Repetitive Reverse Voltage	75V	
V _{RWM} , Working Peak Reverse Voltage		
V _R , DC Blocking Voltage		
V _{R(RMS)} , RMS Reverse Voltage	53V	
I _{FM} , Forward Continuous Current	300mA	
I _O , Average Rectified Output Current	150mA	
I _{FSM} , Non-Repetitive Peak Forward Surge Current	@ t=1.0μs	2.0A
	@ t=1.0s	1.0A
P _D , Power Dissipation	200mW	
R _{θJA} , Thermal Resistance Junction to Ambient Air	625°C/W	
T _J , T _{STG} , Operating and Storage Temperature Range	-65°C ~+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.

ELECTRICAL CHARACTERISTICS

T_A=25°C, unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R =1.0μA	75	-	-	V
Forward Voltage ^{NOTE1}	V _{FM}	I _F =1.0mA I _F =10mA I _F =50mA I _F =150mA	-	-	0.715 0.855 1.0 1.25	V
Peak Reverse Current ^{NOTE1}	I _{RM}	V _R =75V V _R =75V, T _J =150°C V _R =25V, T _J =150°C V _R =20V	-	-	1.0 50 30 25	μA μA μA nA
Total Capacitance	C _T	V _R =0V, f=1.0MHz	-	-	2.0	pF
Reverse Recovery Time	t _{rr}	I _F =I _R =10mA I _{rr} =0.1 x I _R , R _L =100Ω	-	-	4.0	ns

NOTE1: Short duration test pulse used to minimize self-heating effect.



TYPICAL CHARACTERISTICS

$T_A=25^\circ\text{C}$

Figure 1. Power Derating Curve

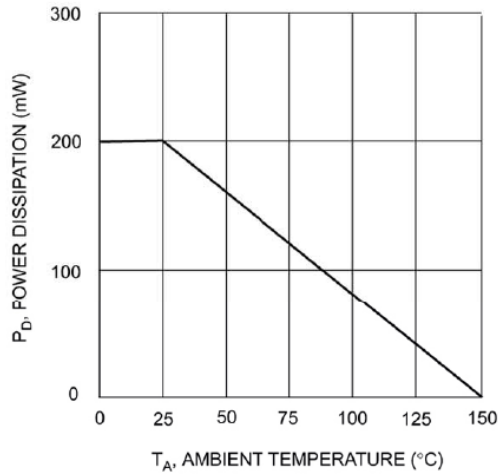


Figure 2. Forward Characteristics

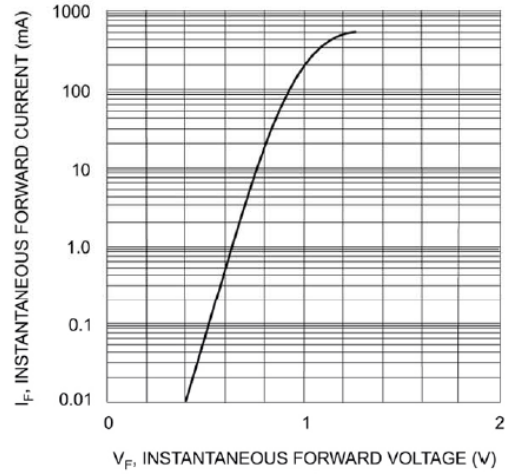
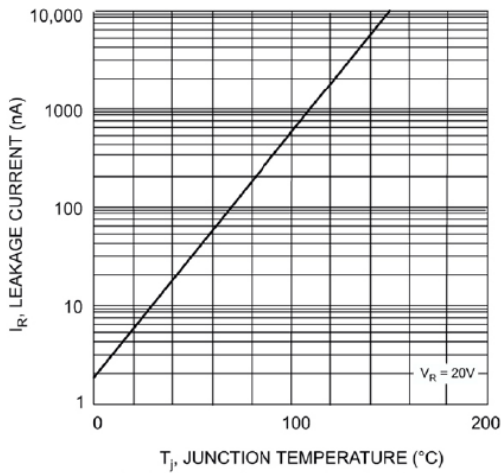


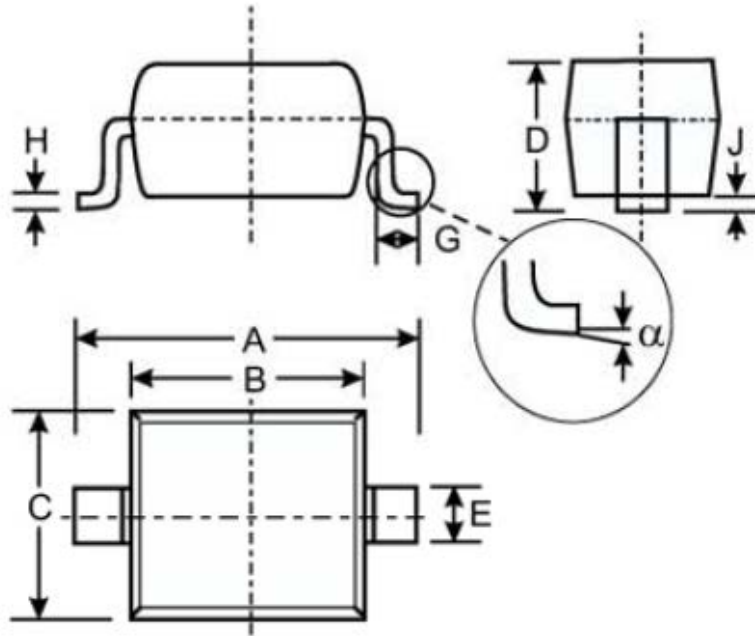
Figure 3. Leakage Current vs. Junction Temperature





PACKAGE INFORMATION

Dimension in SOD-323 (Unit: mm)



Symbol	Min	Max
A	2.30	2.70
B	1.60	1.80
C	1.20	1.40
D	1.05 TYP	
E	0.25	0.35
G	0.20	0.40
H	0.10	0.15
J	0.05 TYP	
α	0°	8°



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