



DESCRIPTION

The 1N4448WS is available in SOD-323 package.

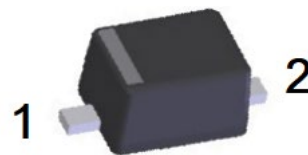
FEATURE

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance

MECHANICAL DATA

- Case: SOD-323, Plastic
- Case Material-UL Flammability Rating
- Classification 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.)

PIN DESCRIPTION



SOD-323

PIN#	DESCRIPTION
1	CATHODE
2	ANODE

ORDERING INFORMATION

Package Type	Part Number
SOD-323	1N4448WS
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	



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	75V
V _R , DC Blocking Voltage	75V
V _{R(RMS)} , RMS Reverse Voltage	53V
I _{FM} , Forward Continuous Current	500mA
I _O , Average Rectified Output Current	250mA
I _{FSM} , Non-Repetitive Peak Forward	t=1.0μs 4A
Surge Current	t=1.0s 2A
P _d , Power Dissipation*	200mW
R _{θJA} , Thermal Resistance Junction to Ambient*	625°C/W
T _J , Junction Temperature Range	-65°C ~ + 150°C
T _{STG} , 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.

*Part mount on FR-4 PC board with minimum recommended pad layouts.

ELECTRICAL CHARACTERISTICS

T_A = 25°C, Unless Otherwise specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage*	V _{(BR)R}	I _R =2.5μA	75	-	-	V
Forward Voltage*	V _F	I _F =5mA	0.620	-	0.720	V
		I _F =10mA	-	-	0.855	
		I _F =100mA	-	-	1.000	
		I _F =150mA	-	-	1.250	
Peak Reverse Current*	I _{RM}	V _R =75V	-	-	2.5	μA
		V _R =75V, T _j = 150°C	-	-	50	
		V _R =25V, T _j = 150°C	-	-	30	
		V _R =20V	-	-	25	
Total Capacitance	C _T	V _R = 0, f = 1MHz	-	-	4	pF
Reverse Recovery Time	T _{rr}	I _F = I _R = 10 mA, I _{rr} =0.1 x I _R , R _L = 100Ω	-	-	4	ns

*Short duration test pulsed to minimize self-heating.



TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Forward Current Derating Curve

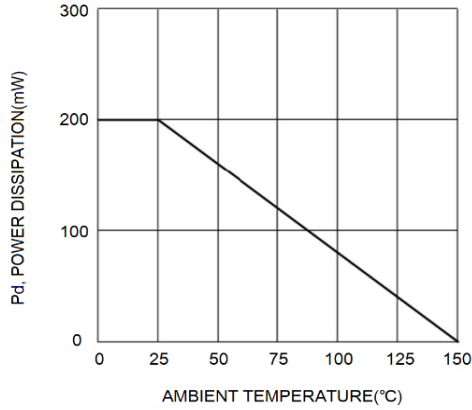


Fig 2. Typical Forward Characteristics

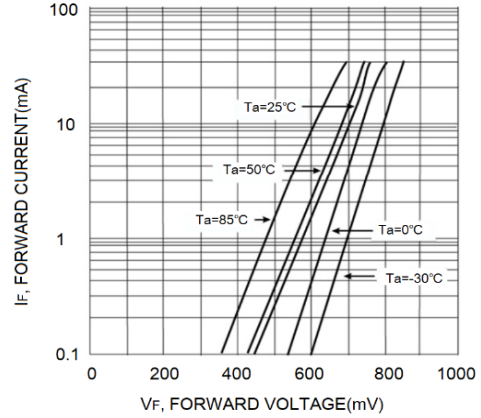


Fig 3. Typical Reverse Characteristics

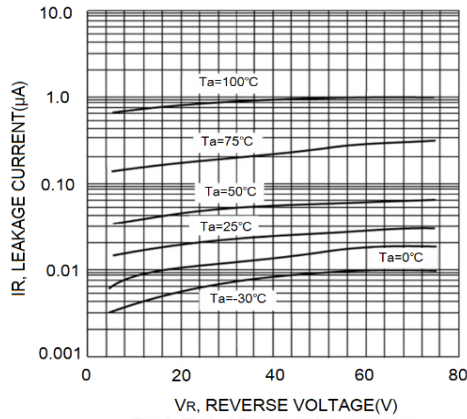


Fig 4. Reverse Recovery Time vs. Forward Current

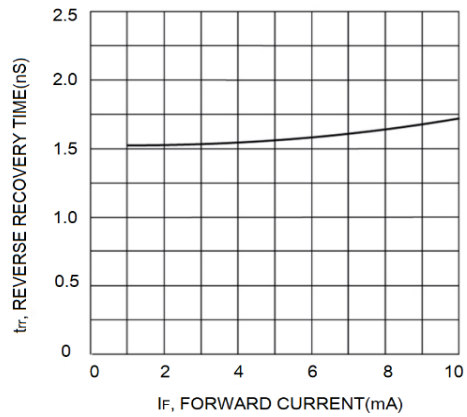
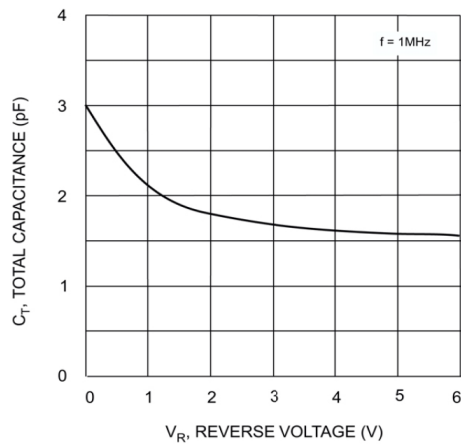


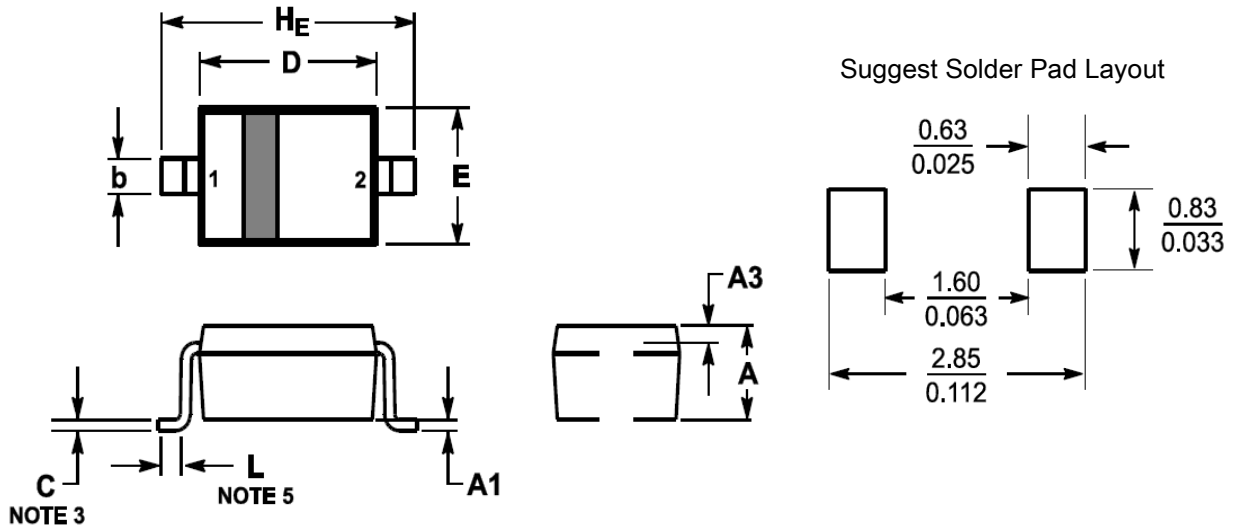
Fig 5. Total Capacitance vs. Reverse Voltage





PACKAGE INFORMATION

Dimension in SOD-323 Package (Unit: mm)



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.80	1.00	0.031	0.040
A1	0.00	0.10	0.000	0.004
A3	0.15 REF		0.006 REF	
b	0.25	0.40	0.010	0.016
C	0.089	0.177	0.003	0.007
D	1.60	1.80	0.062	0.070
E	1.15	1.35	0.045	0.053
L	0.08	-	0.003	-
HE	2.30	2.70	0.090	0.105



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