

Switching Diodes

FEATURES

- ◆For surface mounted applications
- ◆Glass Passivated Chip Junction
- ◆Fast reverse recovery time
- ◆Ideal for automated placement
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆Case: SOD-323
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx. Weight: 5.48mg /0.00019oz

Pinning

1.Cathode	2.Anode
 SOD-323	
Marking Code	
1N4148WS	YFW T4

Absolute Maximum Ratings at 25 °C

Parameter	Symbols	1N4148WS	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	75	V
Continuous Forward Current	I_F	150	mA
Non-reptitive Peak Forward Surge Current	at 1s	0.5	A
	at 1ms	1	
	at 1us	4	
Total Power Dissipation	P_{tot}	400	mW
Operating and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150	°C
Typical Thermal Resistance (1)	$R_{\theta JA}$	340	°C/W
	$R_{\theta JC}$	120	

(1) P.C.B. mounted with 5*5mm copper pad areas.

Characteristics at Ta = 25 °C

Parameter	Symbols	1N4148WS	Units
Reverse BreakdownVoltage at $I_R=1\mu A$	$V_{(BR)R}$	75	V
Maximum Forward Voltage	at 1 mA	0.715	V
	at 10 mA	0.855	
	at 50 mA	1.00	
	at 150 mA	1.25	
Peak Reverse Current	at $V_R=20V$ $T_J=25^\circ C$	0.025	uA
	at $V_R=75V$ $T_J=25^\circ C$	1	
	at $V_R=25V$ $T_J=150^\circ C$	30	
	at $V_R=75V$ $T_J=150^\circ C$	50	
Typical Junction Capacitance $f=1MHz, V_R=0V$	C_j	2	pF
Maximum Reverse Recovery Time(2)	T_{rr}	4	nS

(2) Measured with $I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$

Fig.1 Power Derating Curve

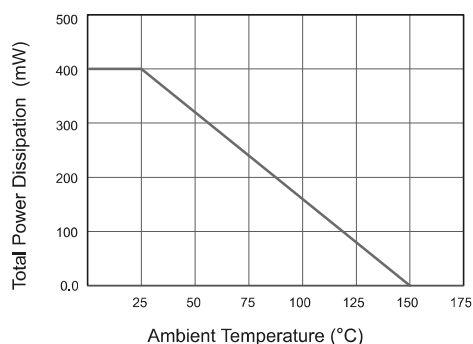


Fig.2 Typical Reverse Characteristics

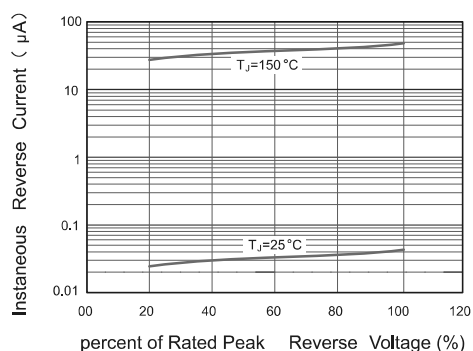


Fig.3 Typical Instantaneous Forward Characteristics

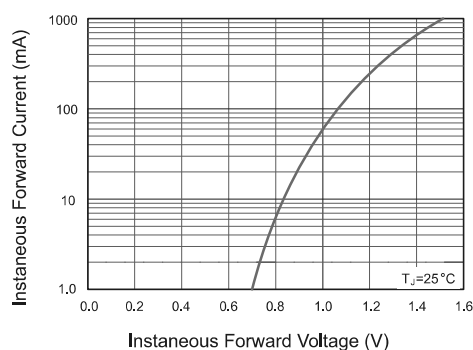
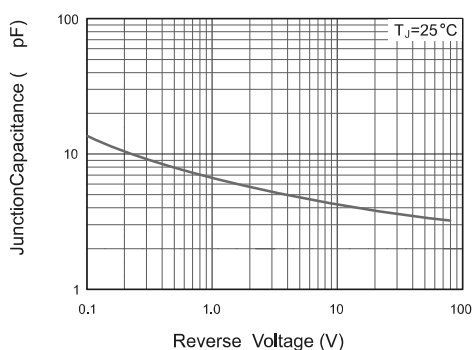


Fig.4 Typical Junction Capacitance



Ordering information

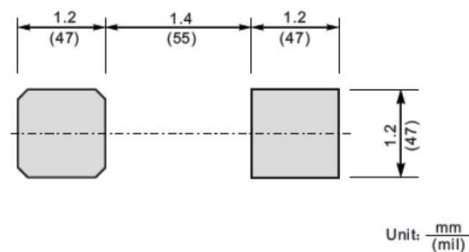
Package	Packing Description	Packing Quantity
SOD-323	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-323

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
C	0.08	0.15	3.1	5.9
D	1.2	1.4	47	55
E	1.4	1.8	63	70
E1	2.55	2.75	100	108
b	0.25	0.4	9.8	16
L1	0.2	0.45	7.9	16
A1	-	0.2	-	8
∠	9°			

The recommended mounting pad size



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