

SSC1N4148D2

Fast Switching Diode

- **Features**

- ❖ Fast Switching Speed
- ❖ Ultra-Small Surface Mount Package
- ❖ Low Reverse Leakage Current
- ❖ Ideal for Battery Powered Portable Applications
- ❖ RoHS Compliant/Green EMC
- ❖ Moisture Sensitivity: Level 3 per J-STD-020

- **PIN configuration**



SOD-323



Circuit Diagram

- **Applications**

- ❖ High speed switching for detection
- ❖ Battery Powered Portable
- ❖ Mobile phones, laptops and other electronic devices



Marking(Top View)

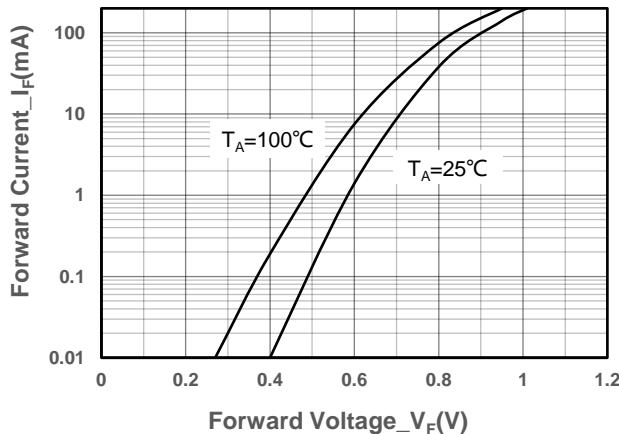
- **Absolute maximum rating @ $T_A=25^\circ\text{C}$**

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Repetitive Peak Reverse Voltage	V_{RRM}		
Working Peak Reverse Voltage	V_{RWM}	100	V
Reverse Voltage(DC)	V_R		
RMS Reverse Voltage	V_{RMS}	71	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Forward Current	I_o	150	mA
Non-Repetitive Peak Forward Surge Current@ $t=8.3\text{ms}$	I_{FSM}	2	A
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	°C/W
Operating Temperature	T_J	-55 ~ +150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

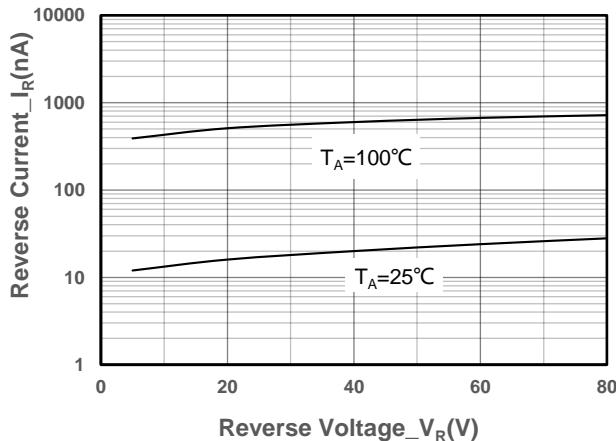
- Electrical Characteristics @ $T_A=25^\circ\text{C}$**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V_{R1}	$I_R = 100\mu\text{A}$	100			V
Forward Voltage	V_F	$I_F = 1\text{mA}$			0.715	V
		$I_F = 10\text{mA}$			0.855	
		$I_F = 50\text{mA}$			1	
		$I_F = 150\text{mA}$			1.25	
Reverse Current	I_R	$V_R = 20\text{V}$			25	nA
		$V_R = 75\text{V}$			1	μA
Total Capacitance	C_T	$V_R = 0, f = 1\text{MHz}$			2	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$			4	ns

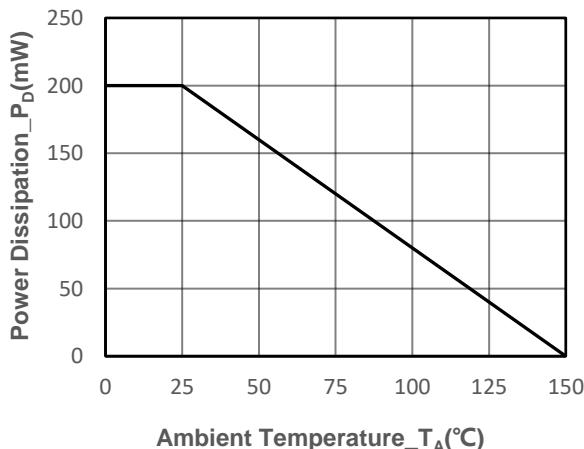
- Typical Performance Characteristics**



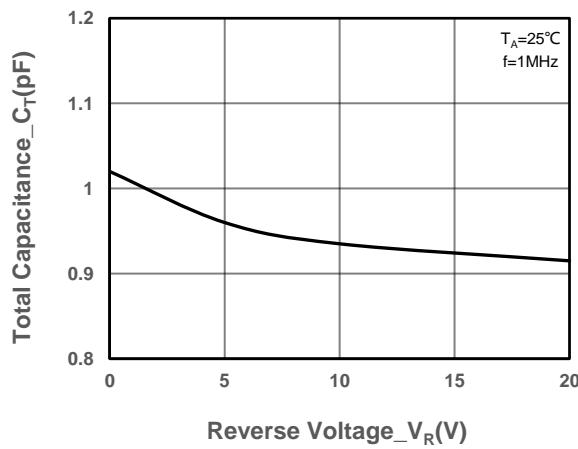
Forward Voltage vs. Forward Current



Reverse Voltage vs. Reverse Current



Power Derating vs. Ambient Temperature



Total Capacitance vs. Reverse Voltage

- Package Information**

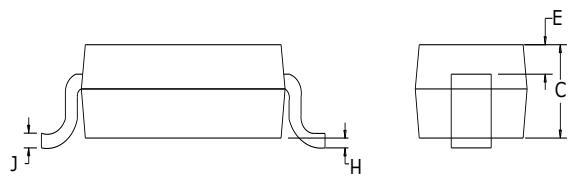
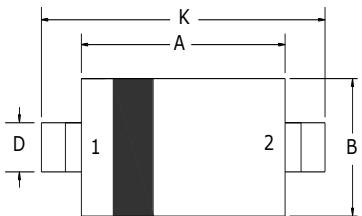
Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSC1N4148D2	SOD-323	T4	3000	7 Inch

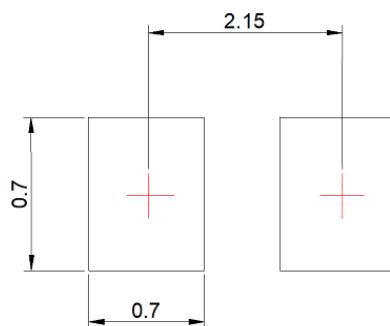
Mechanical Data

Case: SOD-323

Case Material: Molded Plastic. UL Flammability



Dim	Millimeters	
	Min	Max
A	1.60	1.80
B	1.2	1.40
C	0.80	0.90
D	0.25	0.35
E	0.15REF	
H	0	0.10
J	0.08	0.15
K	2.50	2.70

Recommended Pad outline (Unit:mm)




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