



## SSC1N4148D3

### 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-523**



**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<sub>A</sub>=25°C

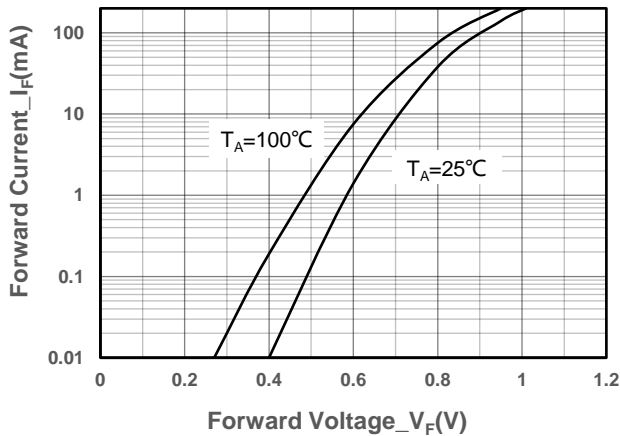
Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Repetitive Peak Reverse Voltage	V <sub>RPM</sub>	75	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
Reverse Voltage(DC)	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>RMS</sub>	53	V
Forward Continuous Current	I <sub>FM</sub>	300	mA
Average Rectified Forward Current	I <sub>O</sub>	150	mA
Non-Repetitive Peak Forward Surge Current@ t=8.3ms	I <sub>FSM</sub>	2	A
Power Dissipation	P <sub>D</sub>	150	mW
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	833	°C/W
Operating Temperature	T <sub>J</sub>	-55 ~ +150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	°C



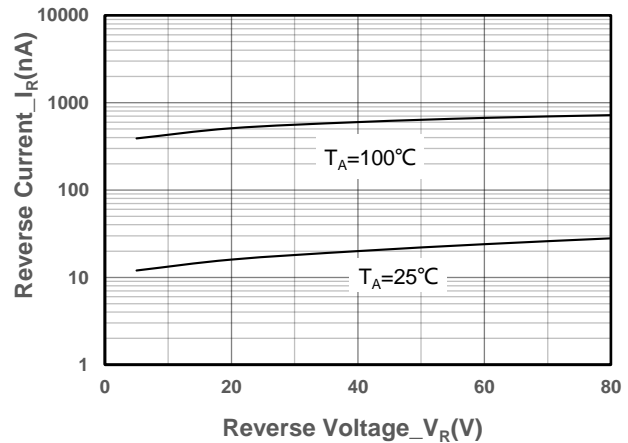
## ● Electrical Characteristics @T<sub>A</sub>=25°C

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V <sub>R1</sub>	I <sub>R</sub> = 100μA	100			V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 1mA			0.715	V
		I <sub>F</sub> = 10mA			0.855	
		I <sub>F</sub> = 50mA			1	
		I <sub>F</sub> = 150mA			1.25	
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 20V			25	nA
		V <sub>R</sub> = 75V			1	μA
Total Capacitance	C <sub>T</sub>	V <sub>R</sub> = 0, f = 1MHz			2	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	ns

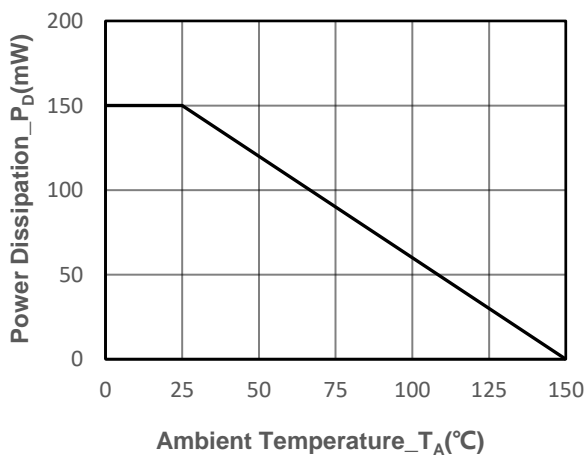
## ● Typical Performance Characteristics



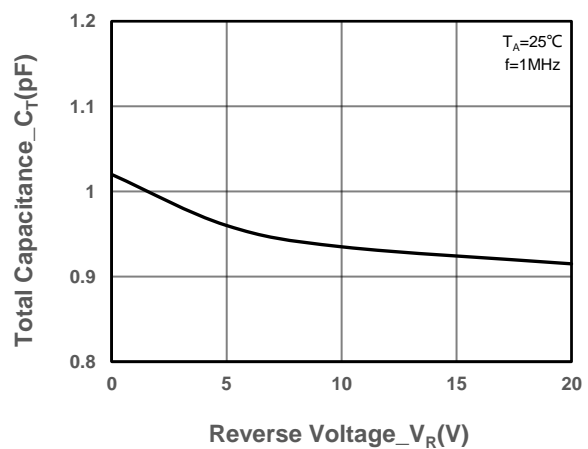
Forward Voltage vs. Forward Current



Reverse Voltage vs. Reverse Current



Power Derating vs. Ambient Temperature



Total Capacitance vs. Reverse Voltage



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## ● Package Information

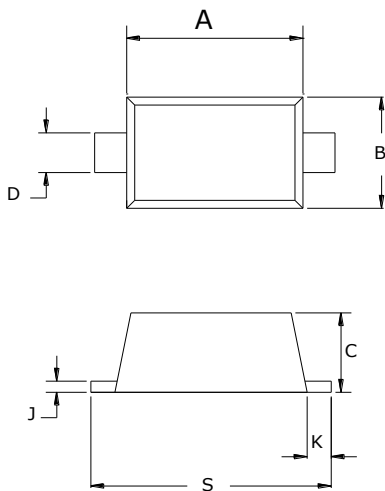
### Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSC1N4148D3	SOD-523	T4	3000	7 Inch

### Mechanical Data

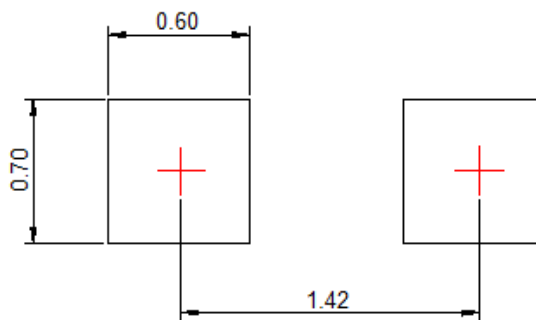
Case: SOD-523

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters	
	Min	Max
A	1.10	1.30
B	0.75	0.85
C	0.51	0.70
D	0.25	0.35
J	0.08	0.15
K	0.15	0.25
S	1.50	1.70

### Recommended Pad outline (Unit:mm)





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