



## SSC1N4448D3

### 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



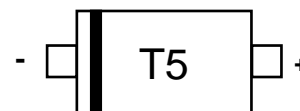
**SOD-523**



**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 unless otherwise noted)

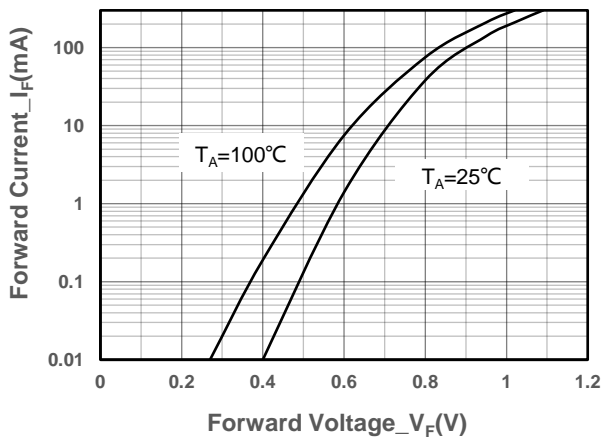
Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	100	
Working Peak Reverse Voltage	V <sub>RWM</sub>	100	V
Reverse Voltage (DC)	V <sub>R</sub>	75	
RMS Reverse Voltage	V <sub>RMS</sub>	53	V
Forward Continuous Current	I <sub>FM</sub>	500	mA
Average Rectified Forward Current	I <sub>O</sub>	250	mA
Non-Repetitive Peak Forward Surge Current@ t=8.3ms	I <sub>FSM</sub>	2.5	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



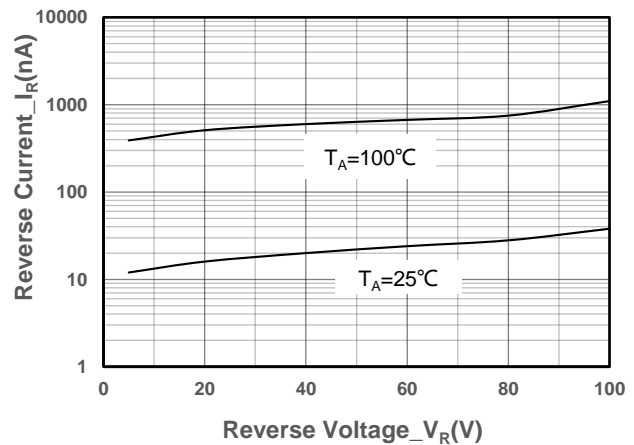
● **Electrical Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise noted)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	$V_{R1}$	$I_R = 5\mu\text{A}$	75			V
	$V_{R2}$	$I_R = 100\mu\text{A}$	100			
Forward Voltage	$V_F$	$I_F = 5\text{mA}$			0.7	V
		$I_F = 100\text{mA}$			1.0	
		$I_F = 50\text{mA}$			1.2	
Reverse Current	$I_R$	$V_R = 20\text{V}$			25	nA
		$V_R = 75\text{V}$			1	$\mu\text{A}$
Total Capacitance	$C_T$	$V_R = 0, f = 1\text{MHz}$			3	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

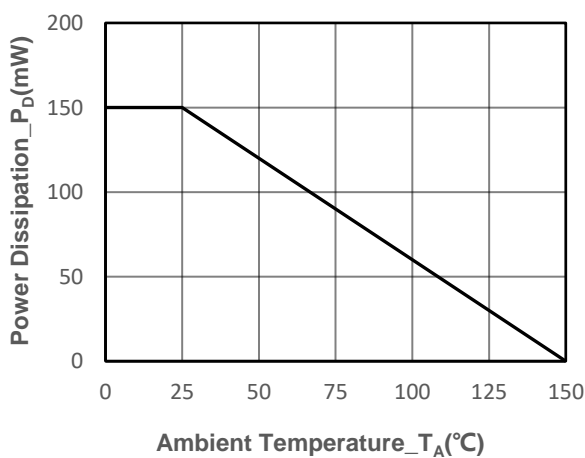
● **Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise noted)**



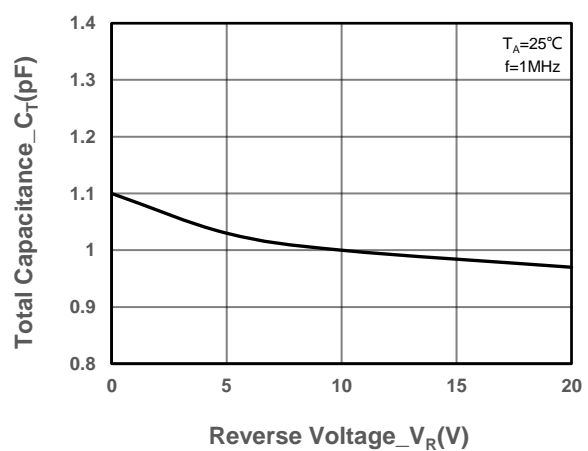
Forward Voltage vs. Forward Current



Reverse Voltage vs. Reverse Current



Power Derating vs. Ambient Temperature



Total Capacitance vs. Reverse Voltage



## ● Package Information

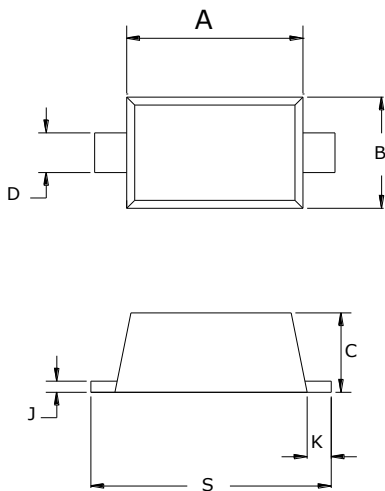
### Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSC1N4448D3	SOD-523	T5	3000	7 Inch

### Mechanical Data

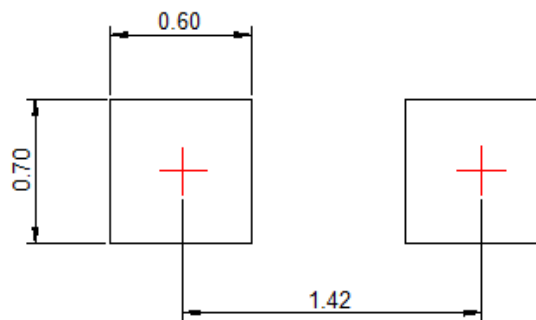
Case: SOD-523

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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