

Preferred Device

# High-Speed Switching Diode

- High-Speed Switching Applications
- Lead Finish: 100% Matte Sn (Tin)
- Qualified Maximum Reflow Temperature: 260°C
- Extremely Small SOD-523 Package

**MAXIMUM RATINGS** ( $T_A = 25^\circ\text{C}$ )

Rating	Symbol	Max	Unit
Reverse Voltage	$V_R$	100	V
Forward Current	$I_F$	200	mAdc
Peak Forward Surge Current	$I_{FM(surge)}$	500	mAdc

**THERMAL CHARACTERISTICS**

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board (Note 1) $T_A = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	200 1.57	mW mW/ $^\circ\text{C}$
Thermal Resistance Junction-to-Ambient	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Junction and Storage Temperature	$T_J, T_{stg}$	150	$^\circ\text{C}$

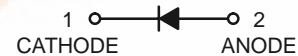
1. FR-4 @ Minimum Pad

**ELECTRICAL CHARACTERISTICS**

Characteristic	Symbol	Min	Max	Unit
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**OFF CHARACTERISTICS**

Reverse Voltage Leakage Current ( $V_R = 80\text{ Vdc}$ )	$I_R$	-	0.1	$\mu\text{Adc}$
Diode Capacitance ( $V_R = 0.5\text{ V}$ , $f = 1.0\text{ MHz}$ )	$C_D$	-	3.0	pF
Forward Recovery Voltage ( $I_F = 100\text{ mAdc}$ )	$V_F$	-	1.2	Vdc
Reverse Recovery Time ( $I_F = I_R = 10\text{ mAdc}$ )	$t_{rr}$	-	4.0	ns

**ON Semiconductor®**<http://onsemi.com>**SOD-523  
CASE 502  
PLASTIC****MARKING DIAGRAM**

A = Specific Device Code  
d = Date Code

**ORDERING INFORMATION**

Device	Package	Shipping
1SS400T1	SOD-523	4 mm pitch 3000/Tape & Reel

**Preferred** devices are recommended choices for future use and best overall value.

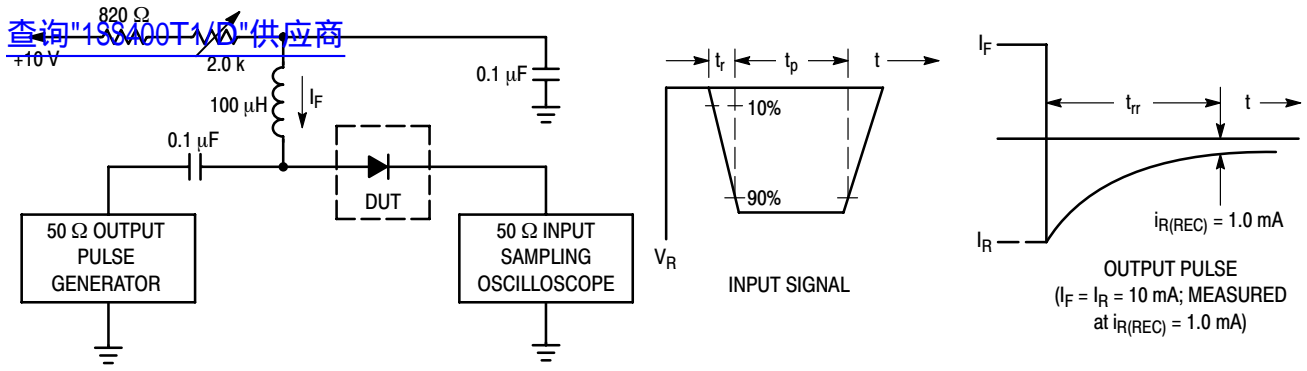


Figure 1. Recovery Time Equivalent Test Circuit

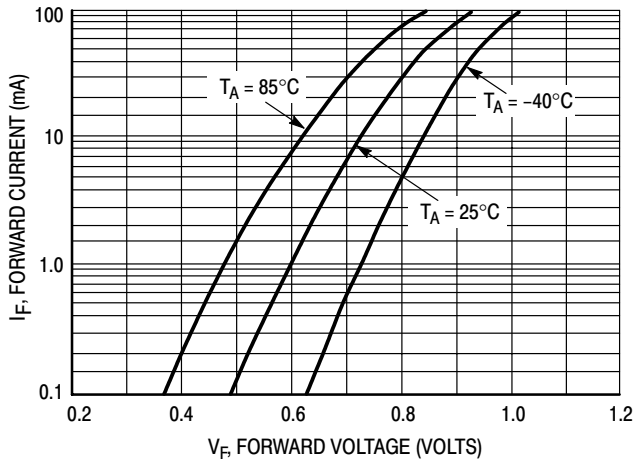


Figure 2. Forward Voltage

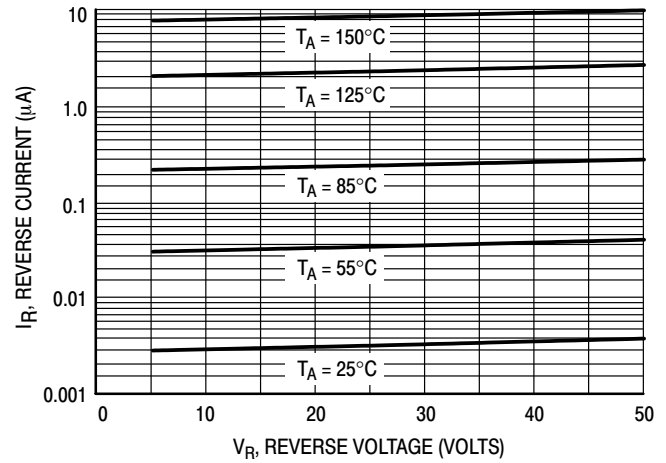


Figure 3. Leakage Current

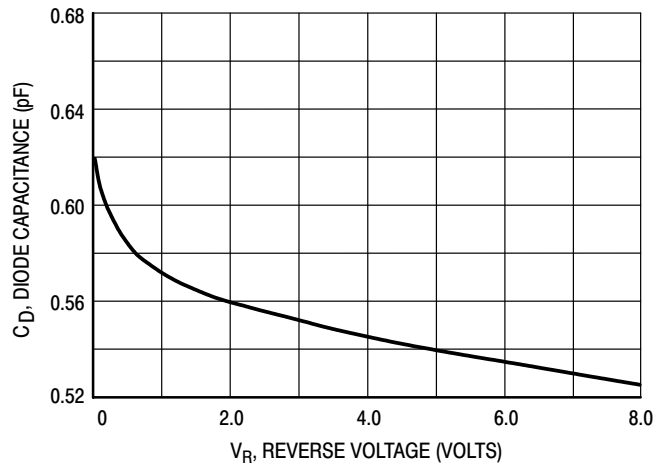


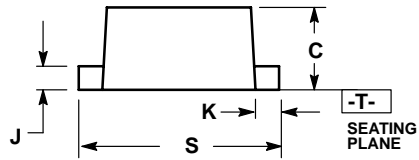
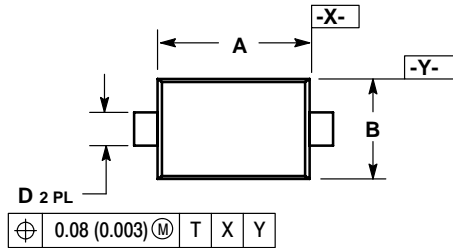
Figure 4. Capacitance

# 1SS400T1

[查询"1SS400T1/D"供应商](#)

## PACKAGE DIMENSIONS

**SOD-523**  
CASE 502-01  
ISSUE O




### NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.10	1.20	1.30	0.043	0.047	0.051
B	0.70	0.80	0.90	0.028	0.032	0.035
C	0.50	0.60	0.70	0.020	0.024	0.028
D	0.25	0.30	0.35	0.010	0.012	0.014
J	0.07	0.14	0.20	0.0028	0.0055	0.0079
K	0.15	0.20	0.25	0.006	0.008	0.010
S	1.50	1.60	1.70	0.059	0.063	0.067

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