



## SMD Switching Diode

Forward Current - 250 mA  
Reverse Voltage - 100 V

## Features

- Small Package
- Low Reverse Current
- Fast Switching Speed
- Surface Mount Package

## Mechanical Data

- Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0
- Polarity: Color band denotes cathode end
- Mounting Position : Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

## Ordering Information

- Package :SOD523
- Reel Size :7 (inches)

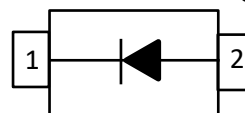
- Quantity Per Reel :3,000 pcs
- Quantity One Box :45,000 pcs
- Quantity One Carton :180,000 pcs

## Package Outline

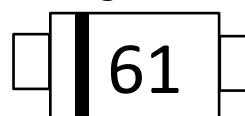


SOD523 Top View

## Device Schematic &amp; PIN Configuration



## Product Type Marking Code



**Maximum Ratings** (@TA = +25°C, unless otherwise specified.)

## Absolute Ratings

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	75	V
Working Peak Reverse Voltage	$V_{RWM}$		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	$I_O$	250	mA
Non-repetitive Peak Forward Surge Current @ t = 8.3ms	$I_{FSM}$	2	A
Power Dissipation	$P_d$	150	mW
Junction temperature	$T_j$	150	° C
Storage Temperature Range	$T_{STG}$	-55 to +150	° C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	° C/W

## Electrical Characteristics

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Breakdown Voltage	$I_R=100\mu A$	$V_{BR}$	75	-	-	V
Reverse Current	$V_R=25V$	$I_R$	-	-	30	nA
	$V_R=75V$		-	-	1	$\mu A$
Forward Voltage	$I_F=1mA$	$V_F$	-	-	0.715	V
	$I_F=10mA$		-	-	0.855	
	$I_F=50mA$		-	-	1	
	$I_F=150mA$		-	-	1.25	
Reverse Recovery Time	$I_F=I_R=10mA, I_{rr}=0.1*I_R, R_L=100\Omega$	$T_{RR}$	-	-	4	ns
Junction Capacitance	$V_R = 0V, F = 1MHz$	CT	-	-	1	pF



## Rating and Characteristic Curves

FIG.1 - Forward Characteristics

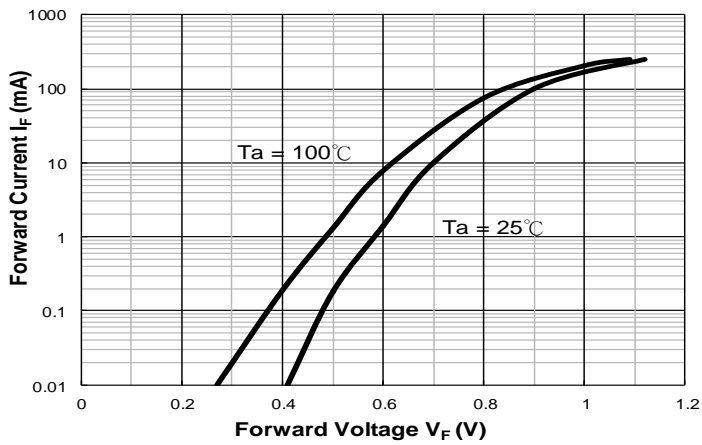


FIG.2 - Reverse Characteristics

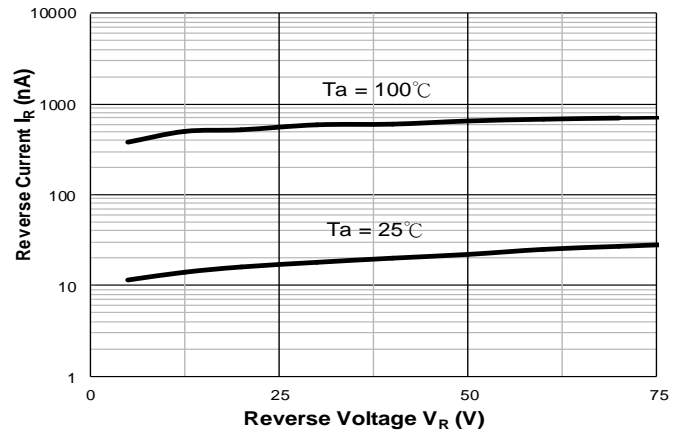


FIG.3 - Power Derating Curve

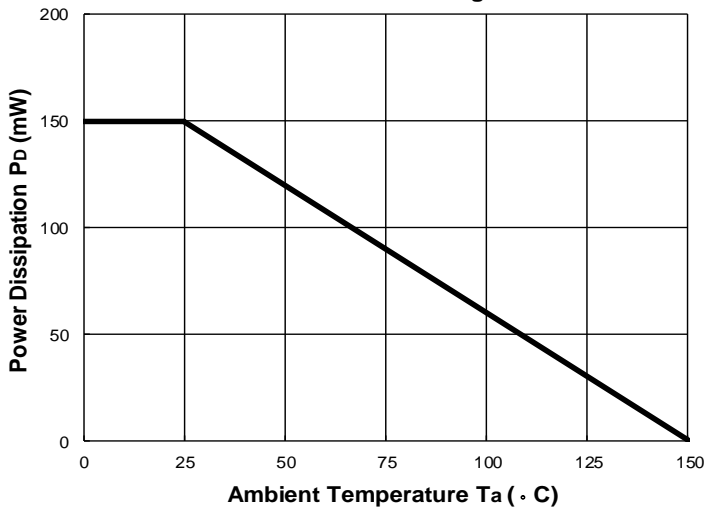
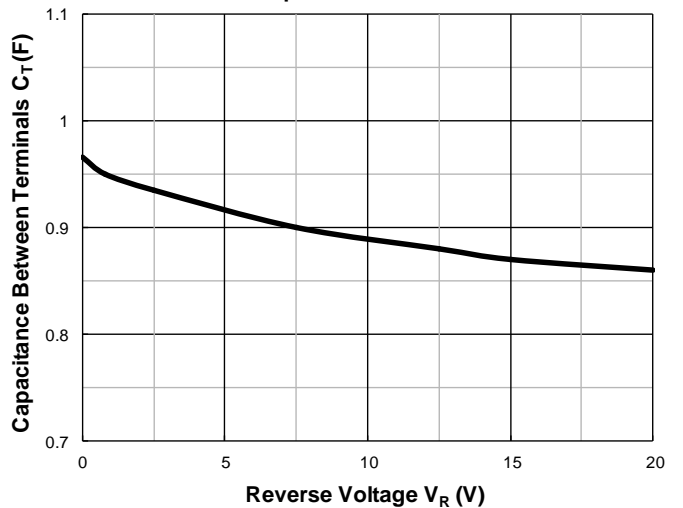
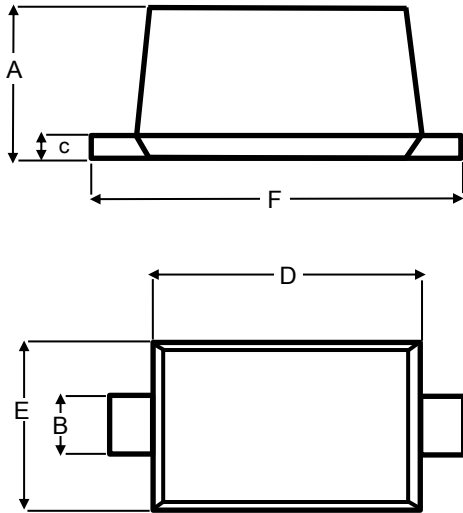


FIG.4 - Capacitance Characteristic





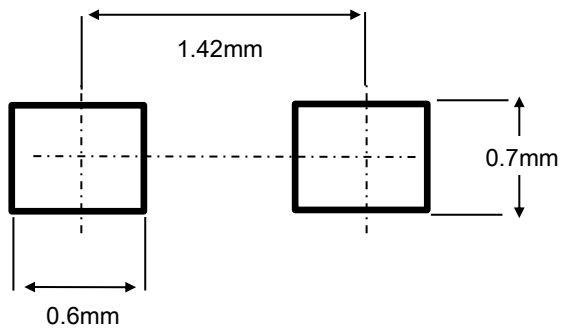
## Package Outline Dimensions



SOD523 Package		
Dim	Min	Max
A	0.53	0.73
B	0.28	0.38
c	0.08	0.15
D	1.1	1.3
E	0.75	0.85
F	1.5	1.7
All Dimensions in mm		

Products with logo

## Suggested Soldering Pad Layout



**Note:**

- 1.The pad layout is for reference purposes only.
- 2.General tolerance  $\pm 0.05\text{mm}$



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