





High Speed Switching Diode

Forward Current - 300 mA
Reverse Voltage - 100 V

Description

- Power Dissipation of 500mW
- Fast Switching Device (TRR<4nS)
- High Stability and High Reliability
- Low Reverse Leakage

Mechanical Data

- Case: SOD123 Package
 - Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0
 - Terminals: Matte tin plated, solderable per MIL-STD-750, method 2026
 - Component in accordance to RoHS
 - Halogen Free
- Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

Ordering Information

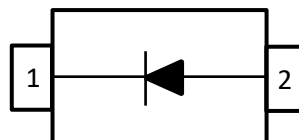
- Package :SOD123
- Reel Size :7 (inches)
- Quantity Per Reel :3,000/Tape & Reel
- Quantity One Box :45,000/Tape & Reel

Package Outline



SOD123 Top View

Device Schematic & PIN Configuration



Product Type Marking Code



"T4" = Product Type Marking Code

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

Absolute Ratings

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RM}	100	V
Average Rectified Current	I_O	150	mA
Forward Rectified Current	I_{FM}	300	mA
Peak Forward Surge Current @ $t_p = 1\mu s$	I_{FSM}	2	A
Power Dissipation	P_D	500	mW
Operating Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	250	°C/W

Electrical Characteristics

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Voltage	$I_R = 100\mu A$	V_{BR}	100	—	—	V
Reverse Current	$V_R = 20V, T_j = 25^\circ C$	I_R	—	—	25	nA
	$V_R = 75V, T_j = 25^\circ C$		—	—	5	μA
	$V_R = 20V, T_j = 150^\circ C$		—	—	50	μA
Forward Voltage	$I_F = 10mA$	V_F	—	—	1.00	V
	$I_F = 100mA$		—	—	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	$V_R = 0V, F = 1MHz$	C_D	—	—	4	pF



Rating and Characteristic Curves

FIG.1 - Forward Characteristics

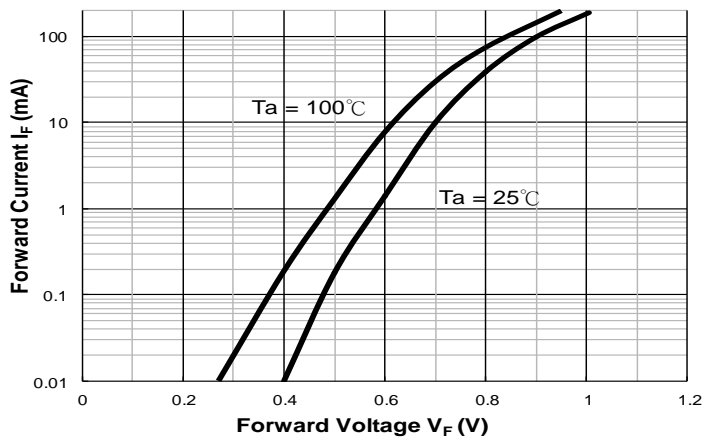


FIG.2 - Leakage Current vs Junction Temperature

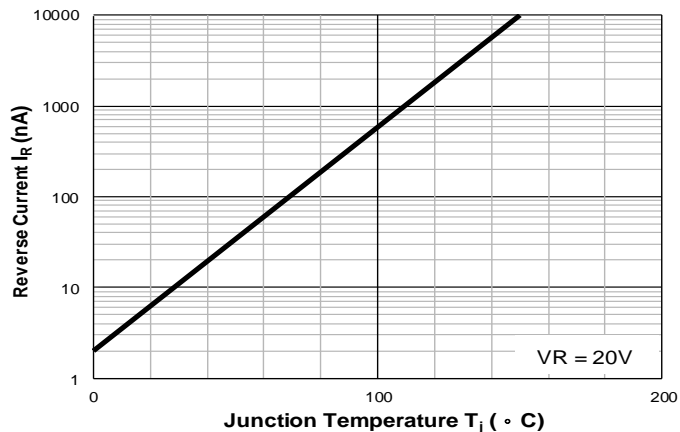


FIG.3 - Power Derating Curve

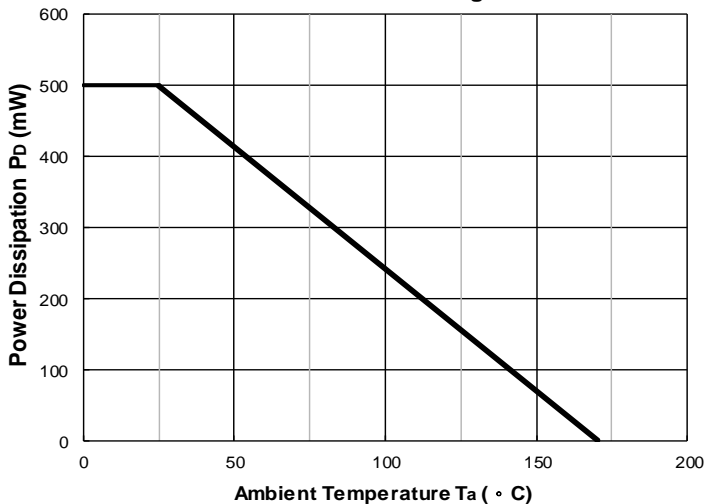
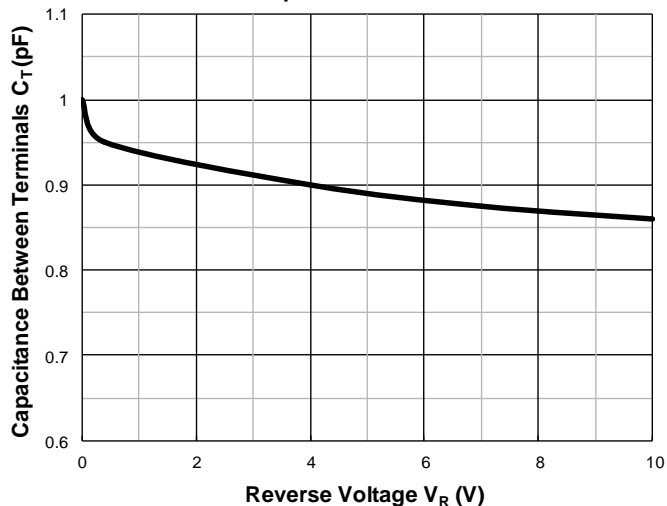
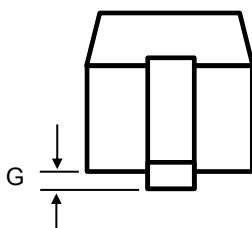
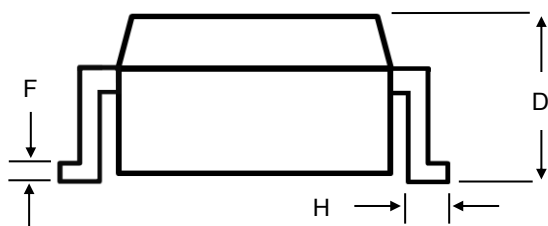
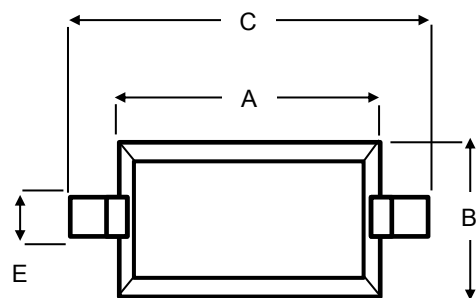


FIG.4 - Capacitance Characteristics



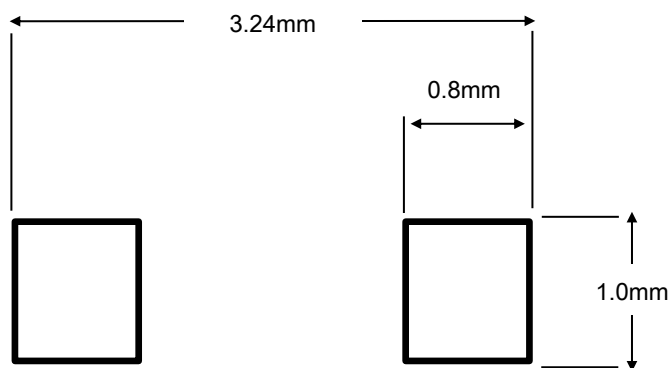


Package Outline Dimensions



SOD123 Package		
Dim	Min	Max
A	2.60	2.80
B	1.50	1.70
C	3.55	3.85
D	1.05	1.25
E	0.45	0.65
F	0.08	0.15
G	-	0.10
H	0.25	0.45
All Dimensions in mm		

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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