BAS516

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 HY® or hy® are made by HY Electronic (Cayman) Limited.

Ordering Information

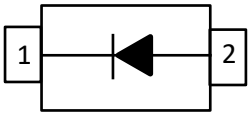
- Package :SOD523
- Reel Size :7 (inches)
- Quantity Per Reel :3,000 pcs
- Quantity One Box :45,000 pcs
- Quantity One Carton :180,000 pcs

Package Outline

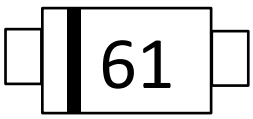


SOD523 Top View

Device Schematic & PIN Configuration



Product Type Marking Code



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

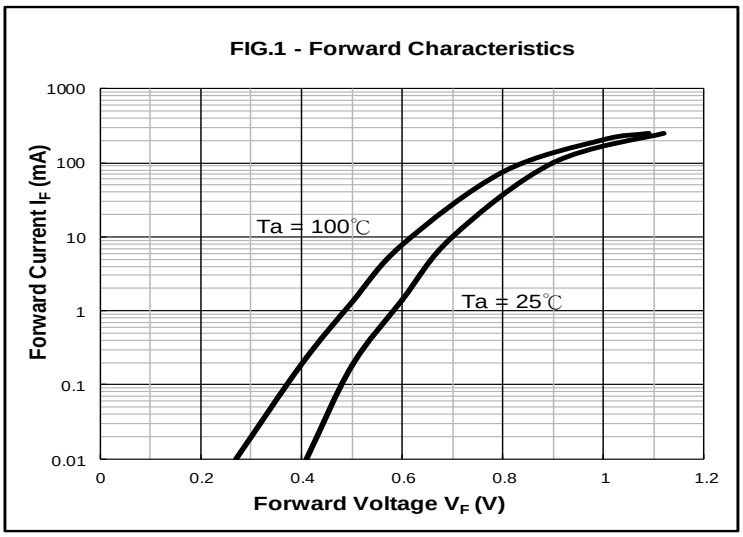
Absolute Ratings

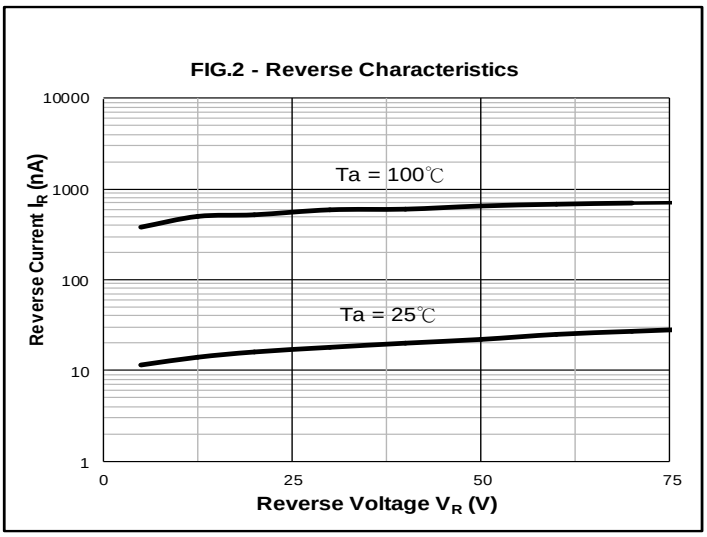
Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_O	250	mA
Non-repetitive Peak Forward Surge Current @ t = 8.3ms	I_{FSM}	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

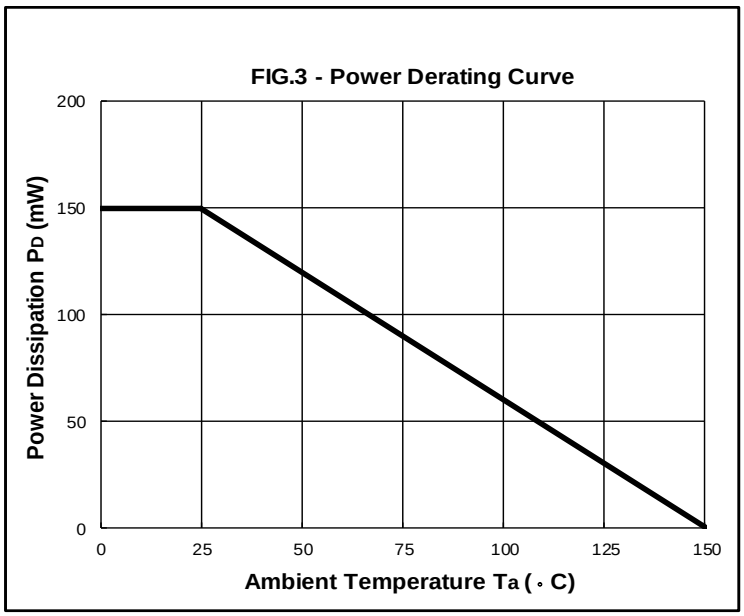
Electrical Characteristics

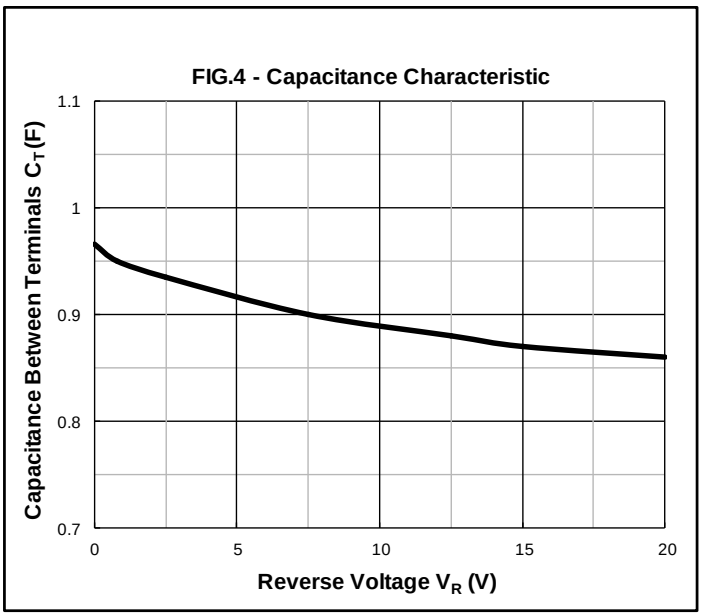
Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Breakdown Voltage	I_R=100uA	V_{BR}	75	-	-	V
Reverse Current	V_R=25V	I_R	-	-	30	nA
	V_R=75V		-	-	1	uA
Forward Voltage	I_F=1mA	V_F	-	-	0.715	V
	I_F=10mA		-	-	0.855	
	I_F=50mA		-	-	1	
	I_F=150mA		-	-	1.25	
Reverse Recovery Time	I_F=I_R=10mA,I_{rr}=0.1*I_R,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

Rating and Characteristic Curves



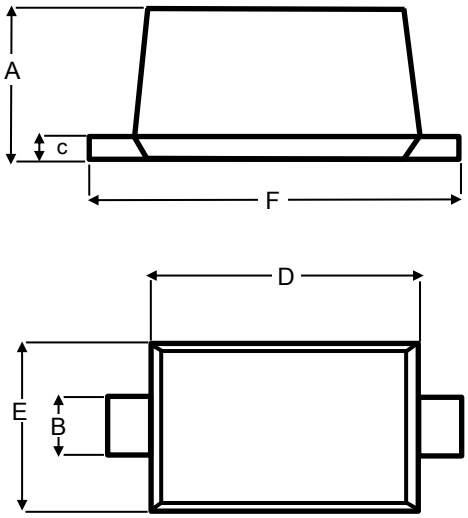






The curve above is for reference only.

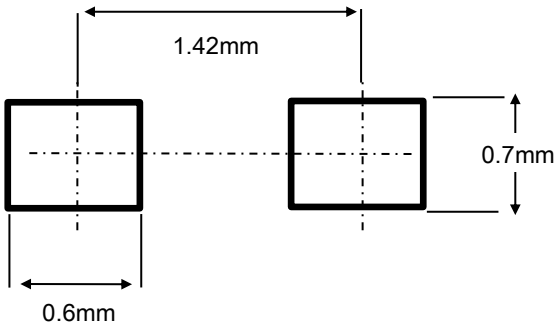
Package Outline Dimensions



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 ±0.05mm

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