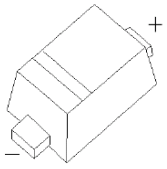
GOOD-ARK
SEMICONDUCTOR

BAS516
Switching Diode

Features

- Low reverse current
- Fast switching speed



SOD-523

Schematic Diagram

Absolute Maximum Ratings

(T_A=25°C unless otherwise noted)

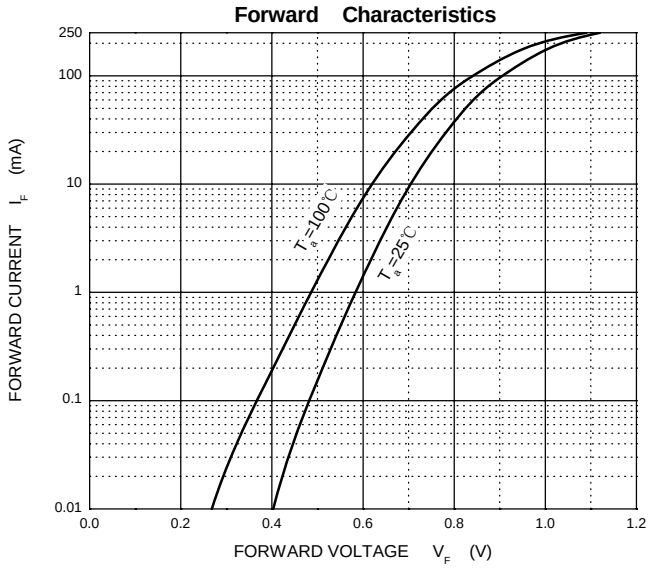
Parameter	Symbol	Rating	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	Io	250	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}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

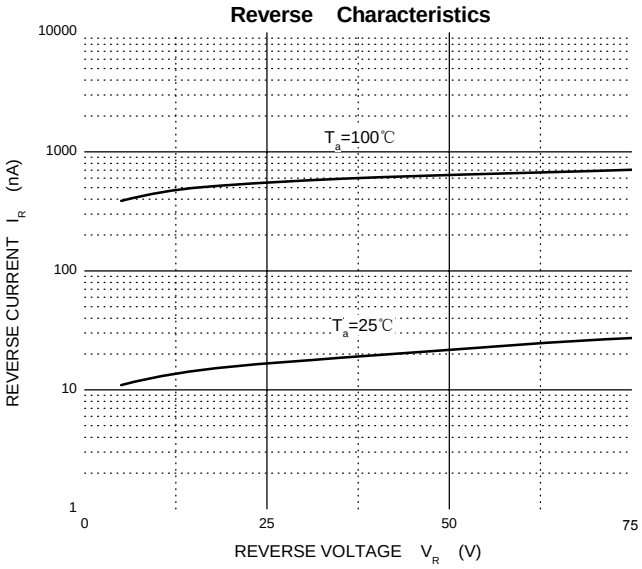
Electrical Characteristics

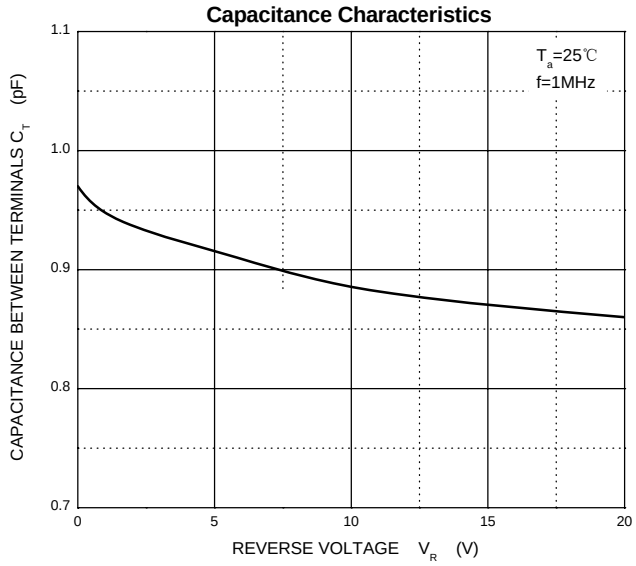
(T_A=25°C unless otherwise noted)

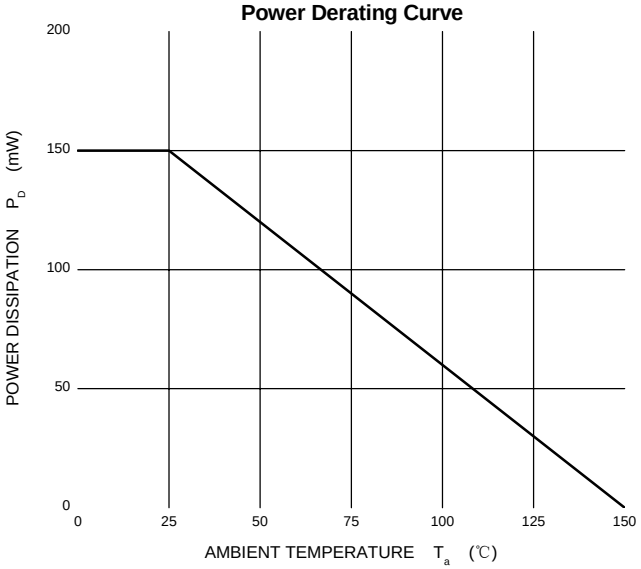
Parameter	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse Voltage	$V_{(BR)}$	I_R=100μA	75	--	--	V
Reverse Current	I_R	V_R=25V	--	--	30	nA
		V_R=75V	--	--	1	μA
Forward Voltage	V_F	I_F=1mA	--	--	0.715	V
		I_F=10mA	--	--	0.855	V
		I_F=50mA	--	--	1	V
		I_F=150mA	--	--	1.25	V
Total Capacity	Ctot	V_R=0V, f=1MHz	--	--	1	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=10mA, I_{rr}=0.1*IR, R_L=100Ω	--	--	4	nS

Typical Characteristic Curves

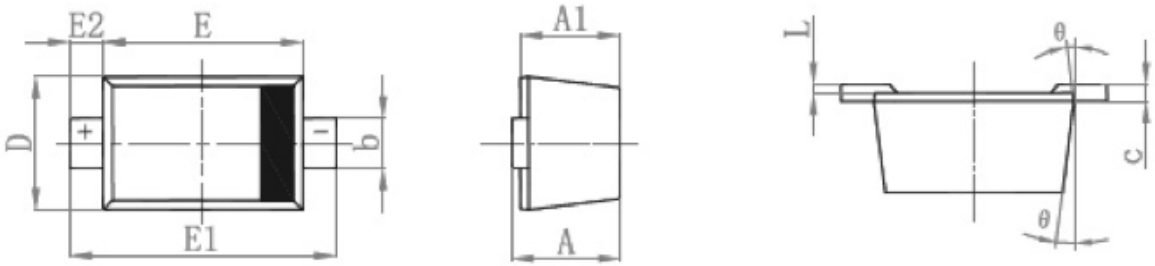






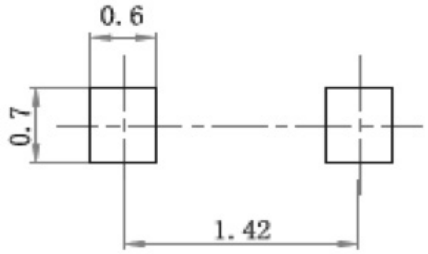


Package Outline Dimensions SOD-523



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

Recommended Pad Layout



Note:
1. Controlling dimension:in millieters
2. General tolerance:0.05mm
3. The pad layout is for reference purpose only