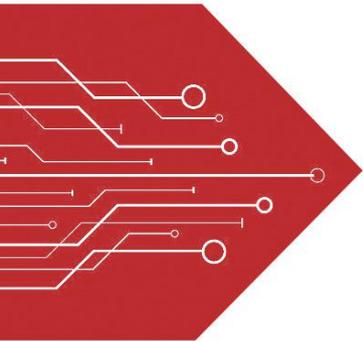


MSKSEMI

SEMICONDUCTOR



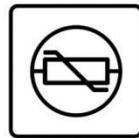
ESD



TVS



TSS



MOV



GDT



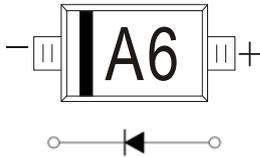
PLED

Product data sheet



SOD-523

MARKING: A6



BAS16X Switching Diode

FEATURES

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

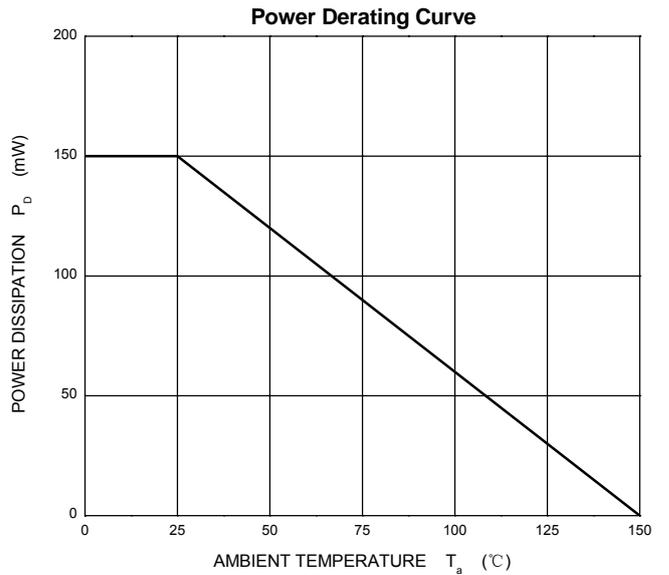
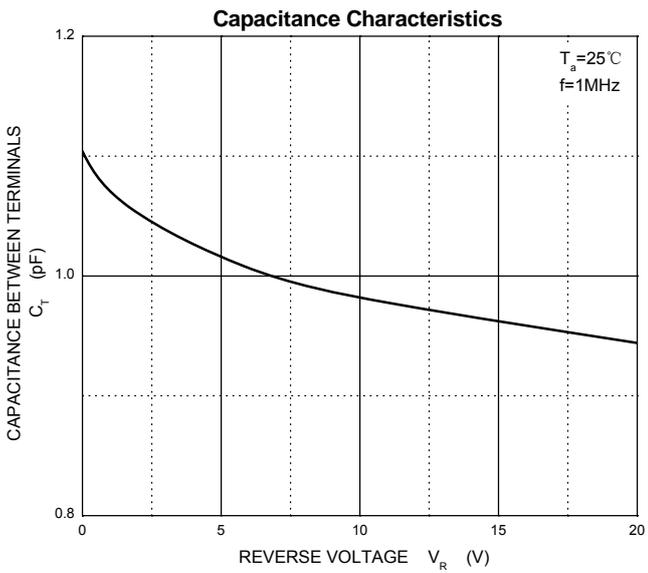
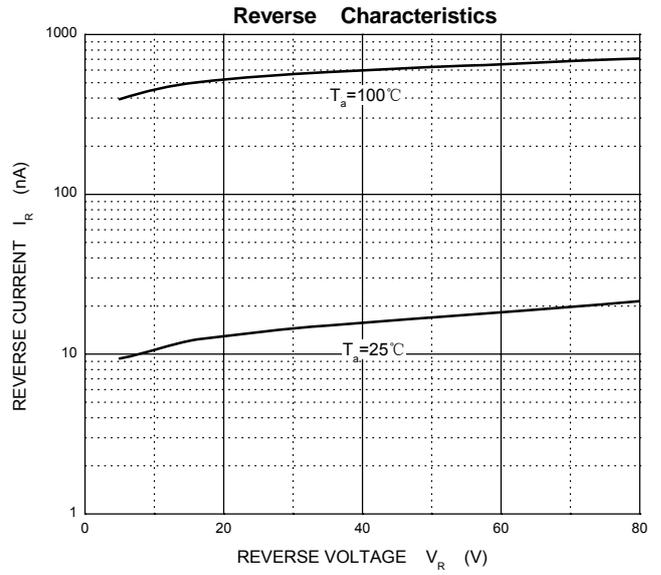
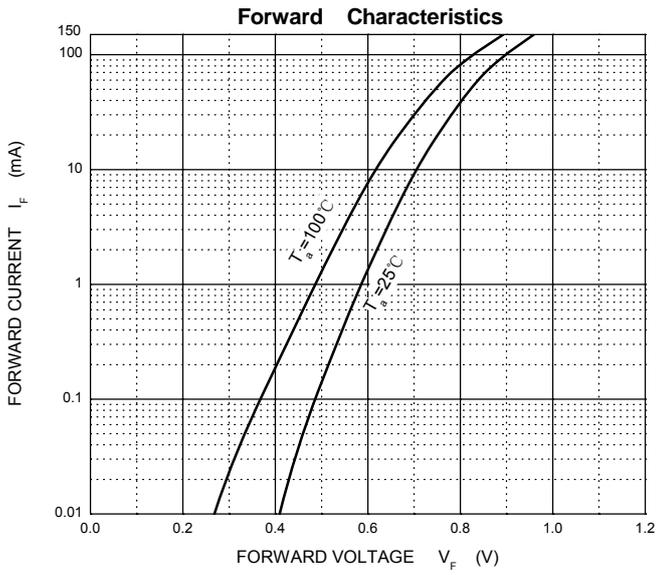
MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _R	Reverse Voltage	75	V
I _F	Forward Continuous Current	200	mA
I _{FSM}	Non-repetitive Peak Forward Surge Current@t= 8.3ms	2	A
P _D	Power Dissipation	150	mW
R _{θJA}	Thermal Resistance from Junction to Ambient	833	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

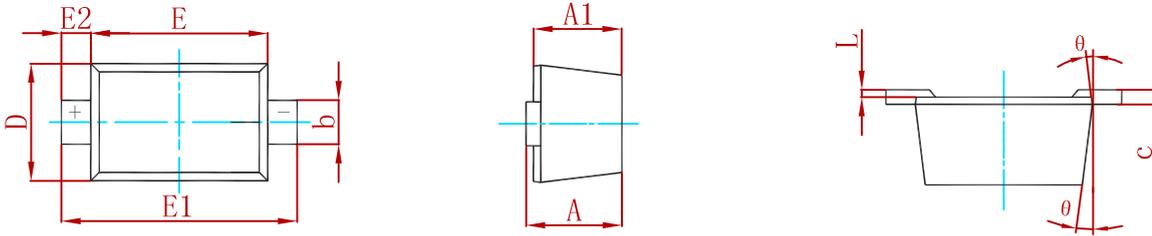
Electrical Ratings @T_a=25°C

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	V _(BR)	75				I _R =100uA
Forward voltage	V _{F1}			715	mV	I _F =1mA
	V _{F2}			855		I _F =10mA
	V _{F3}			1000		I _F =50mA
	V _{F4}			1250		I _F =150mA
Reverse recovery Time	t _{rr}			6.0	ns	I _F =I _R =10mAdc, R _L =50Ω
Reverse current	I _R			1.0	μ A	V _R =75V
Forward recovery voltage	V _{FR}			1.75	V	I _F =10mA, t _r = 20ns
Diode capacitance	C _D			2.0	pF	V _R =0V, f=1MHz
Stored charge	Q _S			45	pC	I _F =10mA, V _R =5.0V ,R _L =500Ω

Typical Characteristics

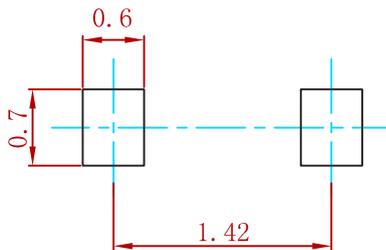


PACKAGE MECHANICAL DATA



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	

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
BAS16X	SOD-523	3000

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