

Switching Diode

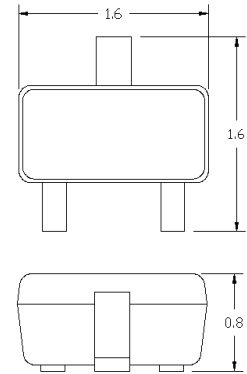
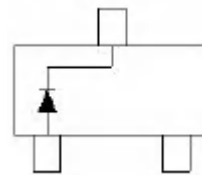
SOT523

Unit:mm

- ◇ Fast Switching Speed
- ◇ For General Purpose Switching Applications
- ◇ High Conductance
- ◇ Low Current Leakage
- ◇ Small Outline Surface Mount Package
- ◇ RoHS compliant / Green EMC

Device Marking Code	
BAS16T	A2

Internal Structure



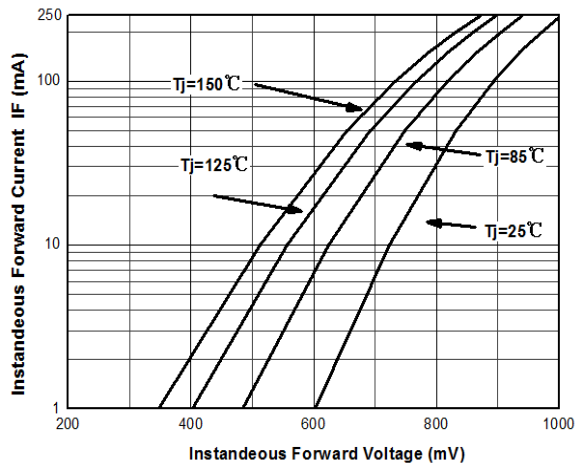
Maximum Ratings ($T_a = 25\text{ }^{\circ}\text{C}$)

Symbol	Parameter	Value	Units
V_R	Reverse Voltage	100	V
V_{RM}	Peak Reverse Voltage	100	V
I_o	Average Rectified Current	150	mA
P_d	Power Dissipation	200	mW
T_J	Junction Temperature	150	$^{\circ}\text{C}$
I_{FSM}	NON-Repetitive Peak Forward Surge Current (@ $t=8.3\text{ms.}$)	2	A
I_F	Peak Forward Current	300	mA
T_{stg}	Storage Temperature	-55 to 155	$^{\circ}\text{C}$
R_{th}	Thermal Resistance	625	$^{\circ}\text{C/W}$

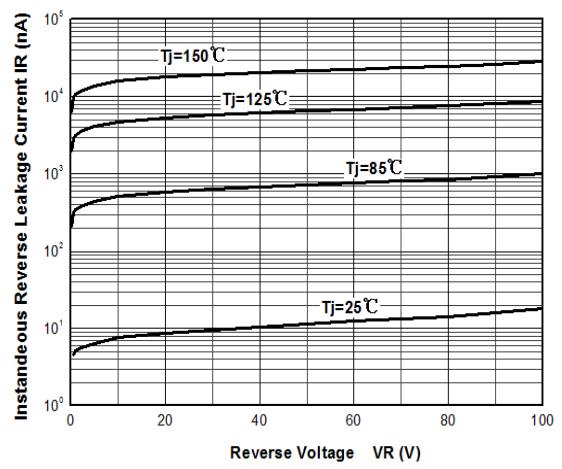
Electrical Characteristics ($T_a = 25\text{ }^{\circ}\text{C}$)

Symbol	Parameter	Test Conditions	Min	Max	Units
V_F	Forward Voltage	$I_F=1\text{mA}$		0.715	V
		$I_F=10\text{mA}$		0.855	V
		$I_F=50\text{mA}$		1.0	V
		$I_F=150\text{mA}$		1.25	V
V_R	Reverse breakdown voltage	$I_R=1\text{uA}$	75		V
I_R	Reverse voltage leakage current	$V_R=75\text{V}$		1	uA
		$V_R=20\text{V}$		25	nA
C_J	Typical Junction Capacitance	$V_R=0\text{V}$, $f=1.0\text{MHz}$		2	pF
T_{rr}	Reverse recovery time	$I_F=I_R=10\text{mA}$, $I_{rr}=0.1 \times I_R$ $R_L=100\text{ }\Omega$		4	nS

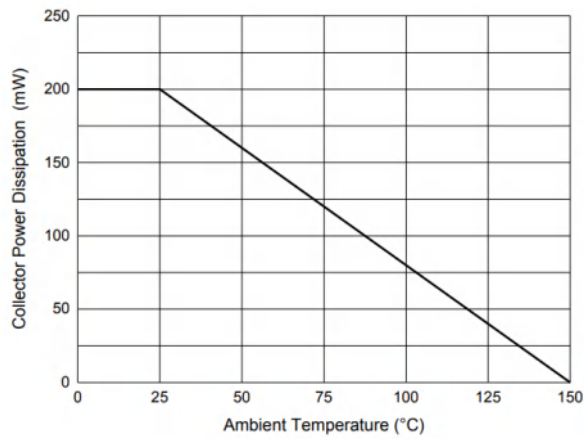
RATING AND CHARACTERISTICS CURVES(BAS16T)



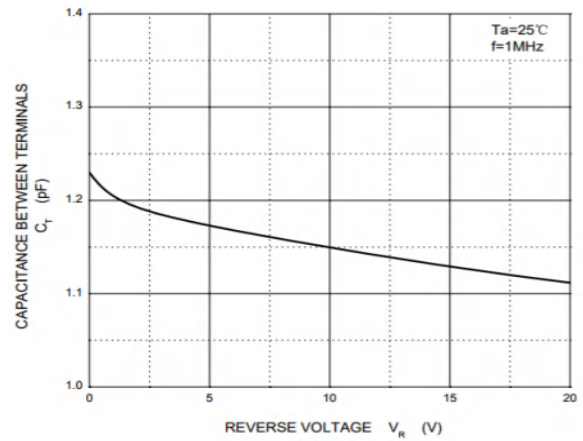
Typical Instantaneous Forward Characteristics



Typical Reverse Leakage Characteristics



Power Derating Curve

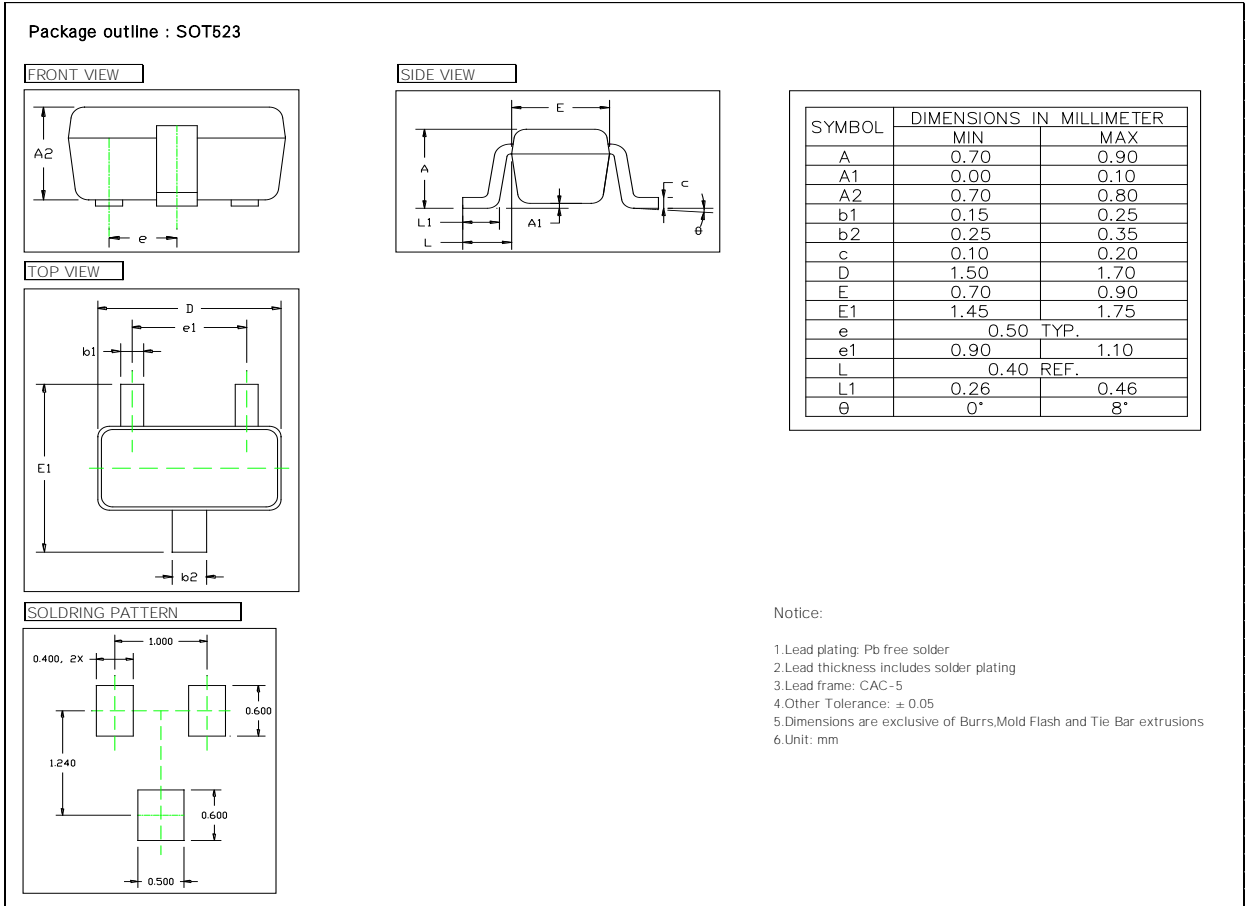


Capacitance Curve

Ordering Information

Package	Package Code	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
SOT523	-T	Tape & Reel 3000pcs /7" Reel	8mm	4mm	Conductive	

Package Dimensions



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