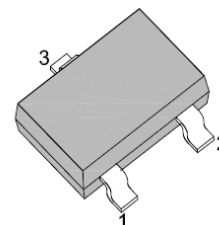


Three Terminals Surface Mount Switching Diode

Features

- Ultra-small surface mount package
- Fast switching speed
- For general purpose switching applications
- High conductance
- RoHS Compliant

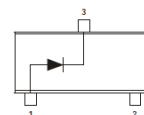


SOT-523



Mechanical Data

Case:	SOT-523, Plastic Case
Terminals:	Solderable per MIL-STD-202, Method 208
Weight:	Approx. 0.002 gram



Maximum Ratings & Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	BAS16WT	Unit	Conditions
	Marking Code	A2		
V_{RM}	Non-Repetitive Peak Reverse Voltage	100	V	
V_{RRM}	Peak Repetitive Reverse Voltage	75	V	
V_{RWM}	Working Peak Reverse Voltage	75	V	
V_R	DC Blocking Voltage	75	V	
$V_{R(RMS)}$	RMS Reverse Voltage	53	V	
I_{FM}	Forward Continuous Current	300	mA	
$I_{F(AV)}$	Average Forward Current	150	mA	
I_{FSM}	Peak Forward Surge Current	2	A	$t=1.0\mu s$
		1	A	$t=1.0s$
P_D	Power Dissipation	200	mW	
R_{thJA}	Maximum Thermal Resistance, Junction to Ambient	625	$^{\circ}C / W$	
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-65 to +150	$^{\circ}C$	

Three Terminals Surface Mount Switching Diode

BAS16WT

Symbol	Description	Min.	Max.	Unit	Conditions
$V_{(BR)R}$	Reverse Breakdown Voltage	75	-	V	$I_R=1\mu A$
V_F	Forward Voltage	-	0.715	V	$I_F=1mA$
		-	0.855		$I_F=10mA$
		-	1.0		$I_F=50mA$
		-	1.25		$I_F=150mA$
I_R	Reverse Current	-	1.0	μA	$V_R=75V$
		-	0.025		$V_R=20V$
C_T	Total Capacitance	-	2	pF	$V_R=0V, f=1MHz$
T_{rr}	Reverse Recovery Time	-	4	nS	$I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$

Typical Characteristics Curves

Fig.1- Instantaneous Forward Characteristics

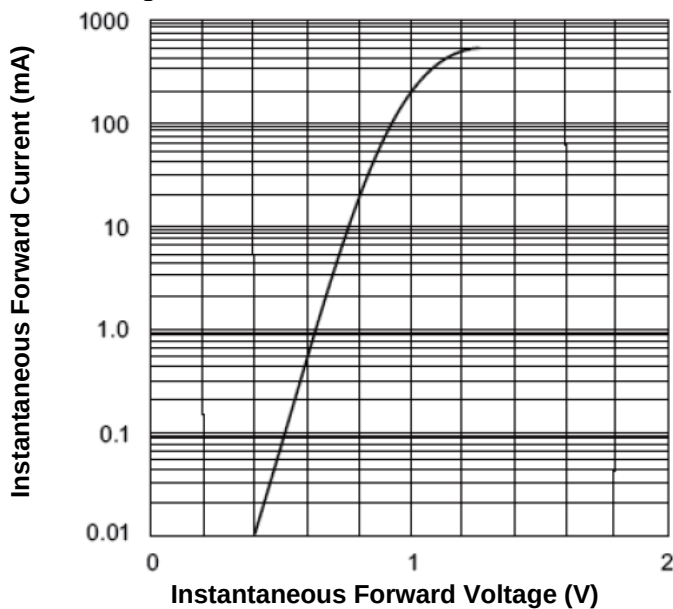
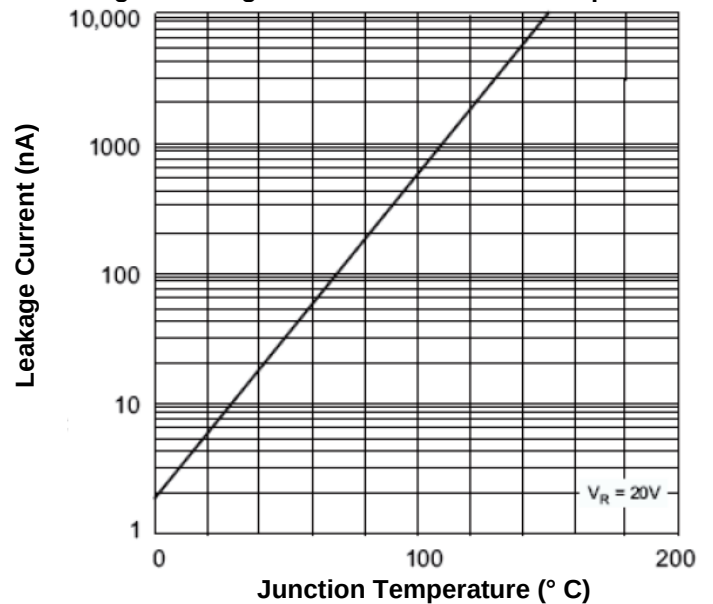


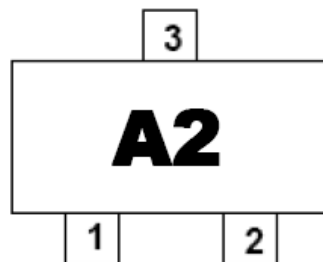
Fig.2- Leakage Current vs. Junction Temperature



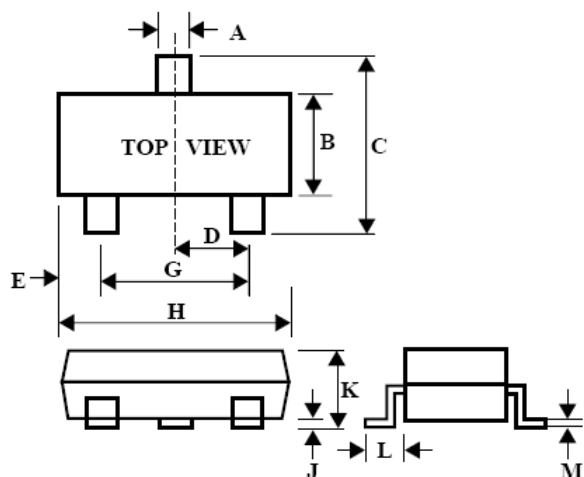
Three Terminals Surface Mount Switching Diode

BAS16WT

Marking Information



Dimensions in mm



SOT-523		
Dim	Min	Max
A	0.30	0.50
B	0.70	0.90
C	1.45	1.75
D	-	0.50
E	0.15	0.40
G	0.80	1.00
H	1.40	1.80
J	0.00	0.10
K	0.70	1.00
L	0.37	0.48
M	0.10	0.25

Three Terminals Surface Mount Switching Diode

BAS16WT

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