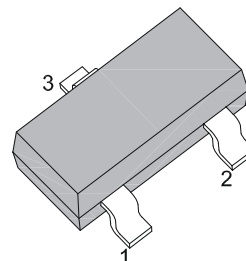


Three Terminals SMD Switching Diode

Features

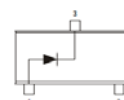
- Silicon Epitaxial Planar Diode
- Ultra Fast Switching Speed
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion
- RoHS Compliant



Mechanical Data

Case:	SOT-23, Plastic Case
Terminals:	Solderable per MIL-STD-202G, Method 208
Weight:	Approx. 0.008 gram

SOT-23



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

Symbol	Description		BAS16	Unit	Conditions
	Marking Code		A6		
V_{RRM}	Maximum Repetitive Reverse Voltage		85	V	
I_{F(AV)}	Average Rectified Forward Current		200	mA	
I_{FSM}	Non-Repetitive Peak Forward Surge Current	Pulse Width=1.0s	1	A	
		Pulse Width=1.0μs	2		
P_D	Power Dissipation		350	mW	
R_{thJA}	Thermal Resistance, Junction to Ambient		357	° C/W	
T_J, T_{STG}	Operating Junction and Storage Temperature Range		-55 to +150	° C	

Note: * These ratings are limited values above which the serviceability of any semiconductor device may be impaired.

1: These ratings are based on a maximum junction temperature of 150 degree C.

2: These are steady state limits. The factory should be consulted on applications involving pulse or low cycle operations.

Three Terminals SMD Switching Diode

BAS16

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

Symbol	Description	Min.	Max.	Unit	Conditions
V_R	Breakdown Voltage	85	-	V	$I_R=5.0\mu\text{A}$
V_F	Forward Voltage	-	0.715	V	$I_F=1.0\text{mA}$
			0.855		$I_F=10\text{mA}$
			1.0		$I_F=50\text{mA}$
			1.25		$I_F=150\text{mA}$
I_R	Reverse Current	-	1.0	μA	$V_R=75\text{V}$
			30		$V_R=25\text{V}, T_A=150^{\circ}\text{C}$
			50		$V_R=75\text{V}, T_A=150^{\circ}\text{C}$
C_T	Total Capacitance	-	2.0	pF	$V_R=0\text{V}, f=1\text{MHz}$
T_{rr}	Reverse Recovery Time	-	6.0	ns	$I_F=I_R=10\text{mA}, I_{RR}=1.0\text{mA}, R_L=100\Omega$

Typical Characteristics Curves

Fig.1- Average Rectified Current vs Ambient Temperature

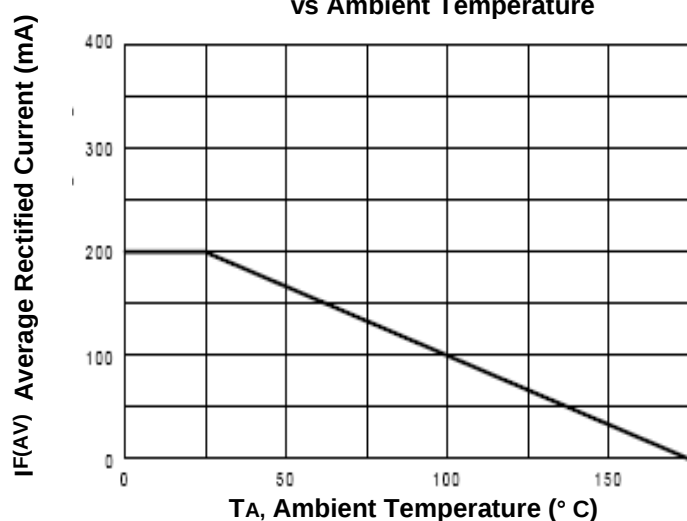
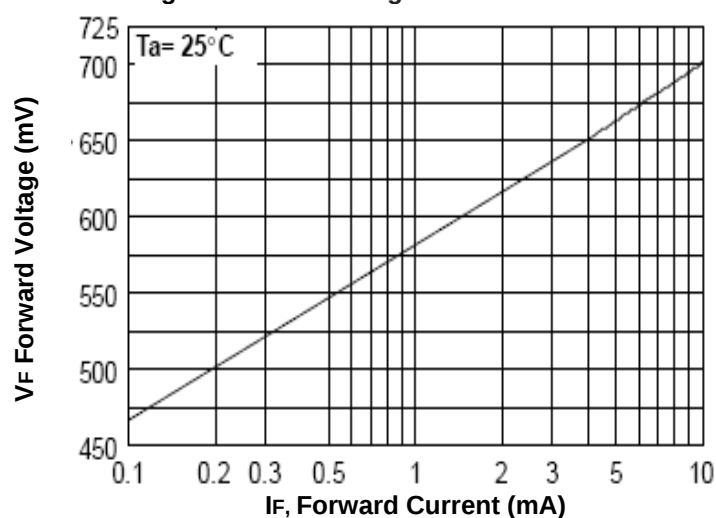


Fig.2- Forward Voltage vs Forward Current



Three Terminals SMD Switching Diode

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Fig.3- Reverse Current vs Reverse Voltage

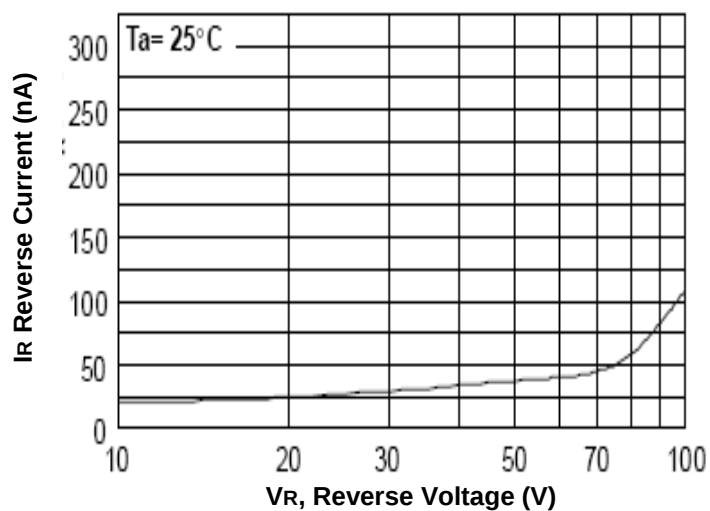
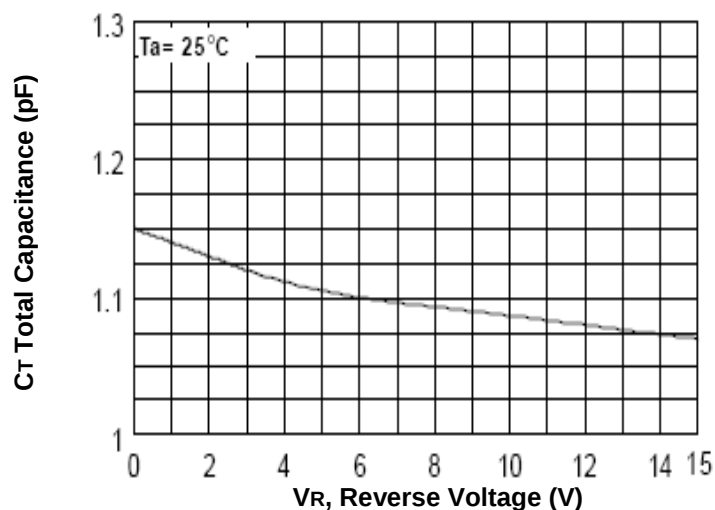
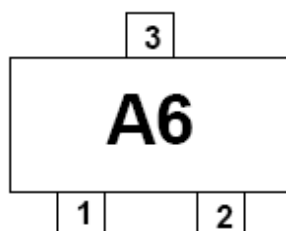


Fig.4- Total Capacitance



General Pule: The reverse current of a diode will approximately double for every ten (10) Degree Cincrase in Temperature

Marking Information

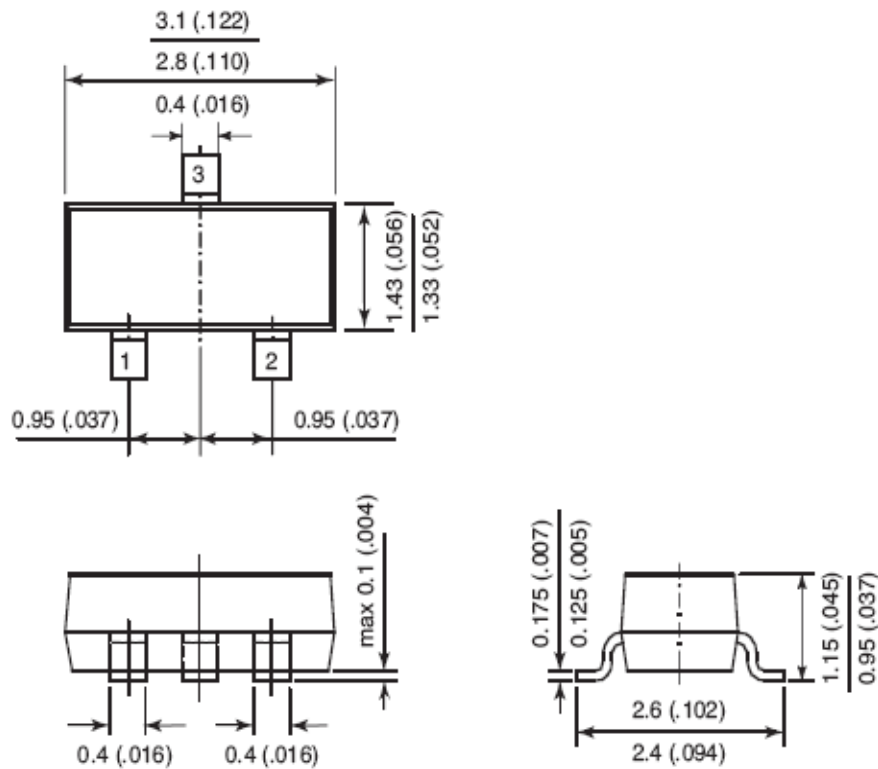


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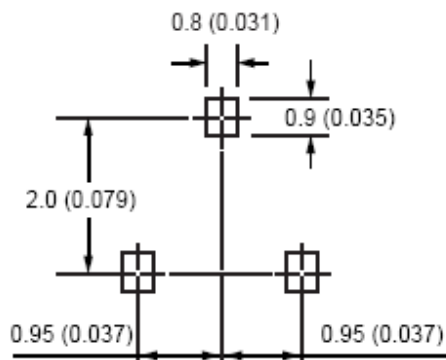
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Dimensions in mm (inch)

SOT-23



Mounting Pad Layout in mm (inch)



Three Terminals SMD Switching Diode

BAS16

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