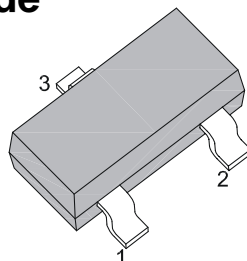


Three Terminals SMD Low Leakage Switching Diode

Features

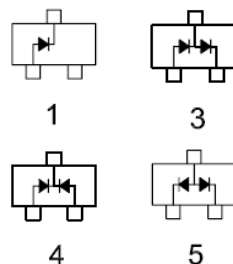
- Surface mount package ideally suited for automatic insertion
- Very low leakage current
- Low capacitance
- RoHS Compliant



SOT-23

Mechanical Data

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



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

Symbol	Description	BAS116	BAW156	BAV170	BAV199	Unit	Conditions
	Pinout Figure	1	5	4	3		
	Marking Code	PA	P4	P3	PB		
V_R	Reverse Voltage	75				V	
V_{RRM}	Peak Reverse Voltage	100				V	
I_{F(AV)}	Average Rectified Continuous Forward Current	0.2				A	
I_{FSM}	Non-Repetitive Peak Forward Surge Current at t=1μS	2.0				A	
P_D	Power Dissipation FR-5 Board	250				mW	Note 1
R_{thJA}	Thermal Resistance, Junction to Ambient	500				° C/W	Note 1
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150				° C	

Note: 1: FR-5=1.0X0.75X0.062"

Three Terminals SMD Low Leakage Switching Diode

BAS116/BAW156/BAV170/BAV199

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

Symbol	Description	Min.	Typ.	Max.	Unit	Conditions
V_R	Reverse Breakdown Voltage	75	-	-	V	I _R =100μA
V_F	Forward Voltage	-	-	0.9	V	I _F =1.0mA
				1.0		I _F =10mA
				1.1		I _F =50mA
				1.25		I _F =150mA
I_R	Reverse Current	-	0.002	5	nA	V _R =75V
			8.0	80		V _R =75V, T _J =150° C
C_T	Total Capacitance	-	-	2.0	pF	V _R =0V, f=1MHz
T_{rr}	Reverse Recovery Time	-	-	3.0	μS	I _F =I _R =10mA, R _L =100Ω

Typical Characteristics Curves

Fig.1- Instantaneous Forward Characteristics

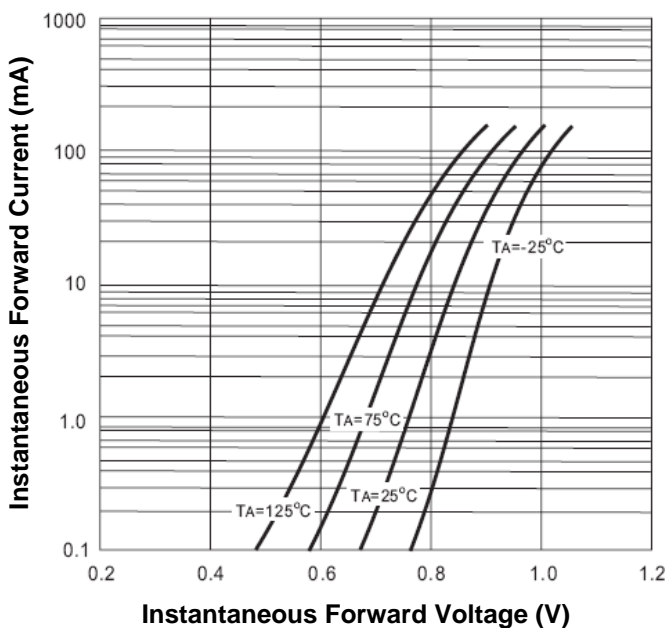
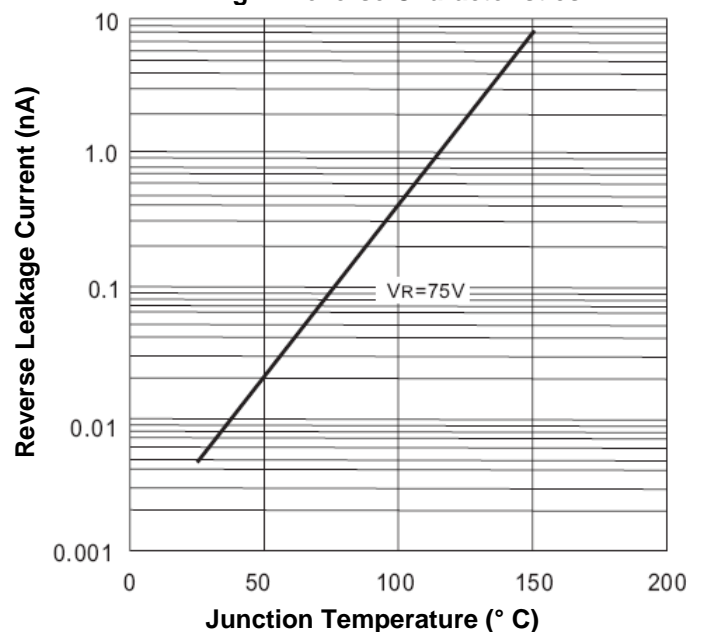


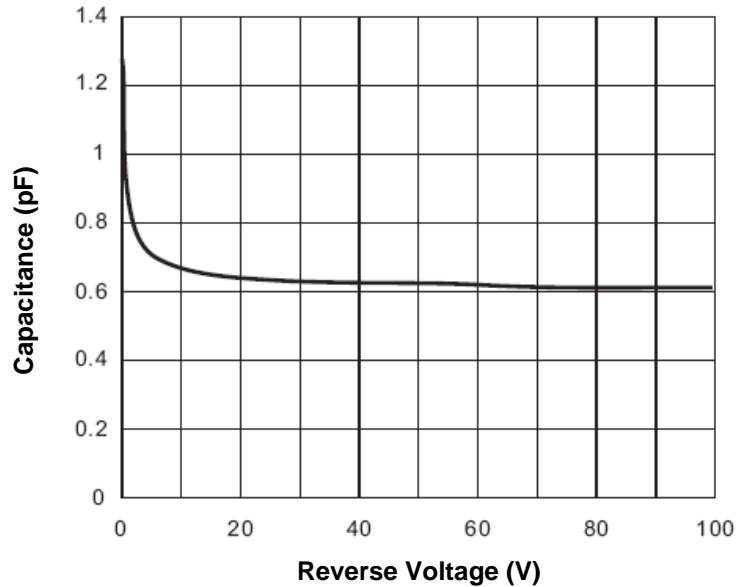
Fig.2- Reverse Characteristics



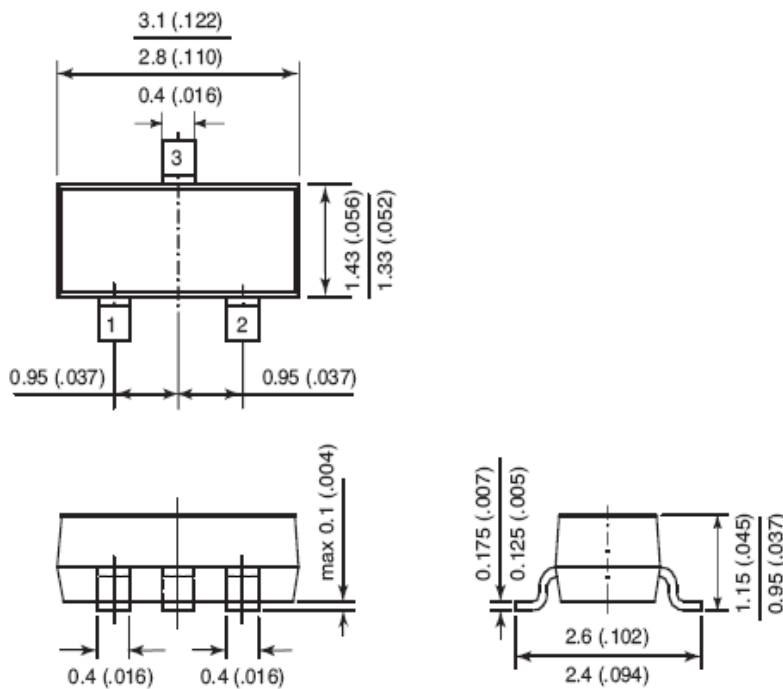
Three Terminals SMD Low Leakage Switching Diode

BAS116/BAW156/BAV170/BAV199

Fig.3- Junction Capacitance



Dimensions in mm (inch)

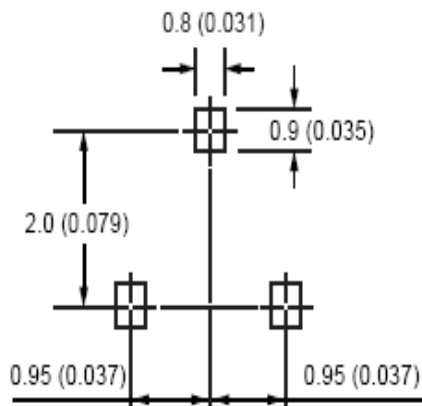


SOT-23

Three Terminals SMD Low Leakage Switching Diode

BAS116/BAW156/BAV170/BAV199

Mounting Pad Layout in mm (inch)



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