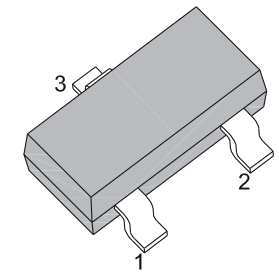
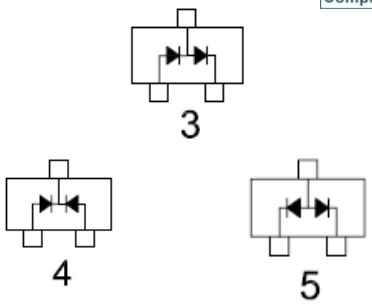
Three Terminals SMD Switching Diodes



SOT-23

Features

- High reverse breakdown voltage
- Fast switching speed
- Low reverse leakage current
- Surface mount package ideally suited for automatic insertion
- Galvanically isolated dual configurations to save board space
- RoHS compliant



Mechanical Data

Case:	SOT-23, Plastic Case
Terminals:	Solderable per MIL-STD-750, Method 2026
Weight:	Approx. 0.008 gram

Maximum Ratings *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	BAS21A	BAS21C	BAS21S	Unit	Conditions
	Pinout Figure	5	4	3		
	Marking Code	21A	21C	21S		
V_R	Reverse Voltage	250			V	
V_{RRM}	Peak Reverse Voltage	250			V	
$I_{F(AV)}$	Average Forward Rectified Current	0.2			A	T_A=25° C
I_{FSM}	Non-repetitive Peak Forward Surge Current	4			A	t=1.0µs
P_D	Power Dissipation	250			mW	
R_{thJA}	Thermal Resistance from Junction to Ambient Air	357			° C/W	
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150			° C	

Electrical Characteristics *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	Min.	Typ.	Max.	Unit	Conditions
$V_{(BR)}$	Reverse Breakdown Voltage	-	-	250	V	I_R=100μA
V_F	Forward Voltage	-	-	0.7	V	I_F=1.0mA
				1.0		I_F=100mA
I_R	Reverse Current	-	-	0.1	μA	V_R=200V
				100	μA	V_R=200V, T_J=150° C
C_T	Total Capacitance	-	-	5.0	pF	V_R=0V, f=1.0MHz
T_{rr}	Reverse Recovery Time	-	-	50	nS	I_F=I_R=30mA, R_L=100Ω

Typical Characteristics Curves

Fig.1- Power Derating Curve

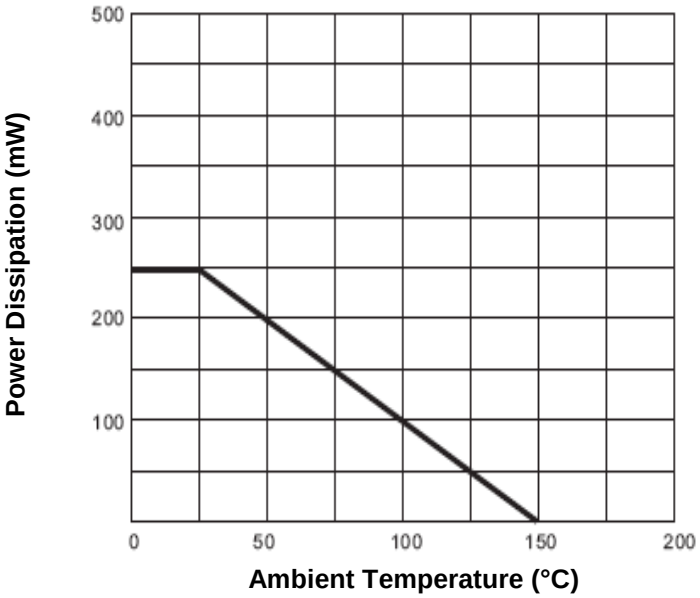


Fig.2- Typical Forward Characteristics

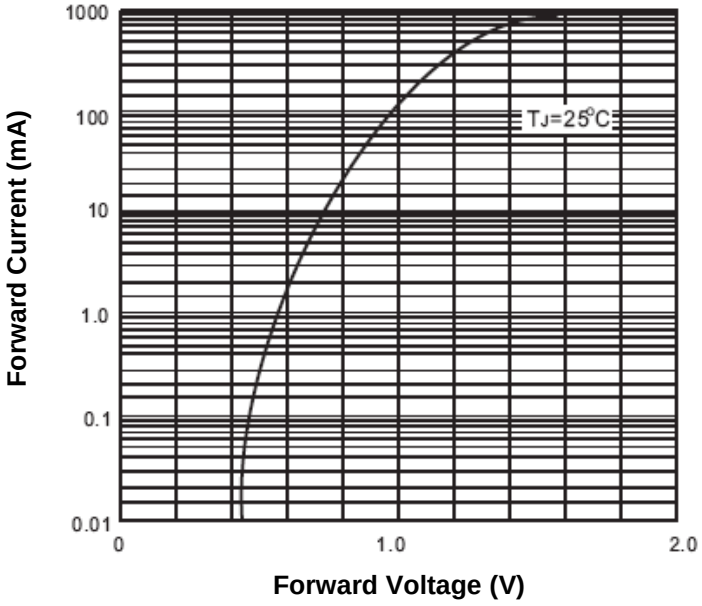


Fig.3-Leakage Current vs. Junction Temperature

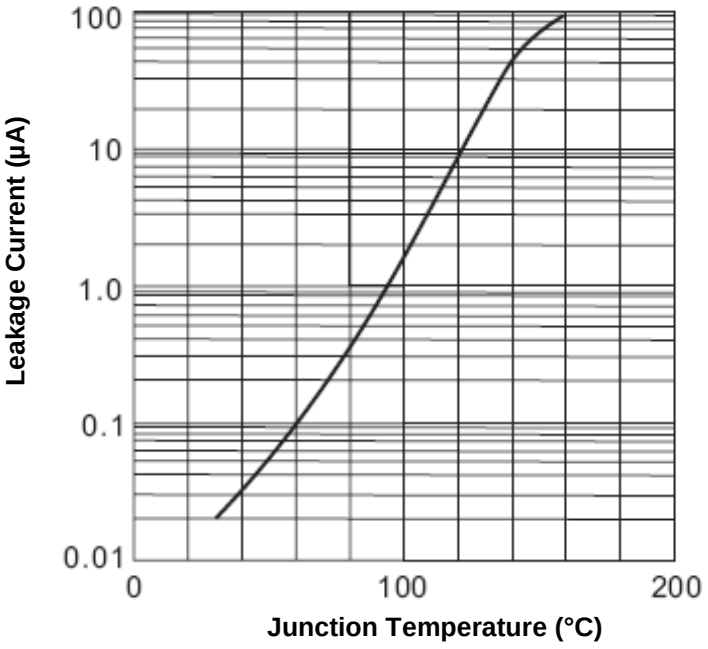
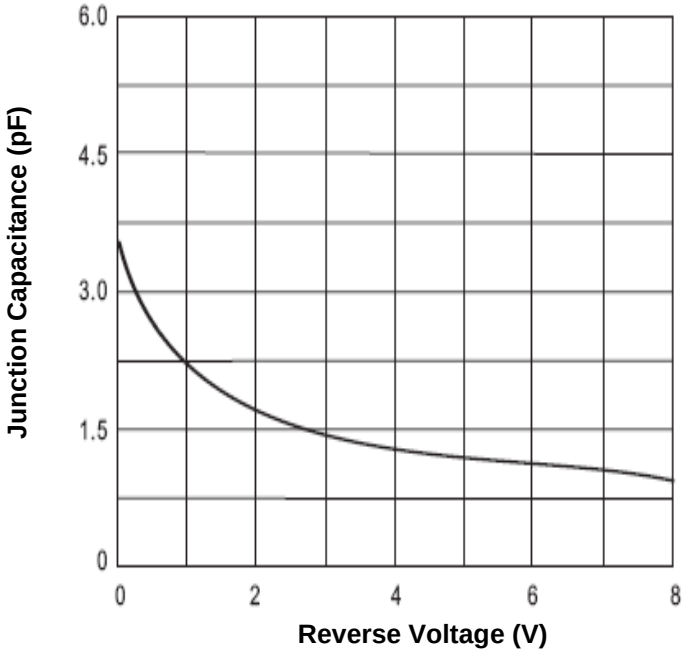
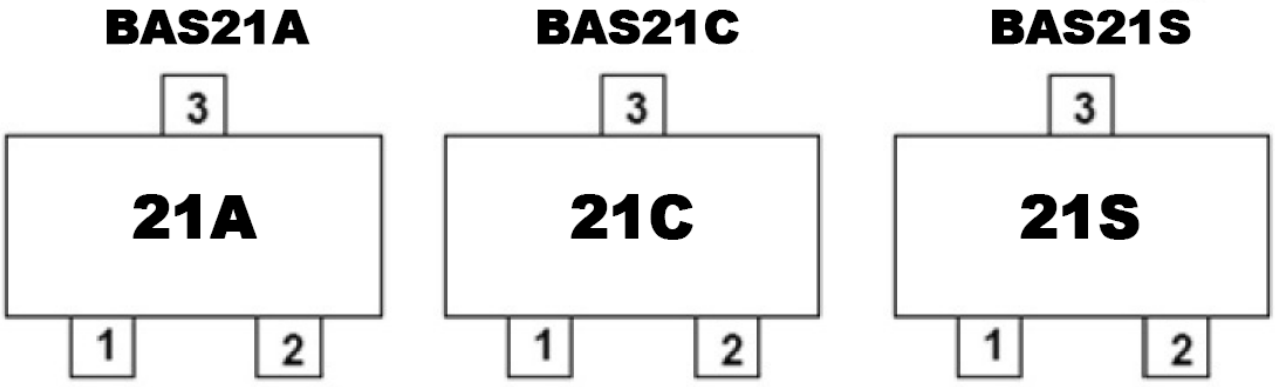


Fig.4- Typical Junction Capacitance

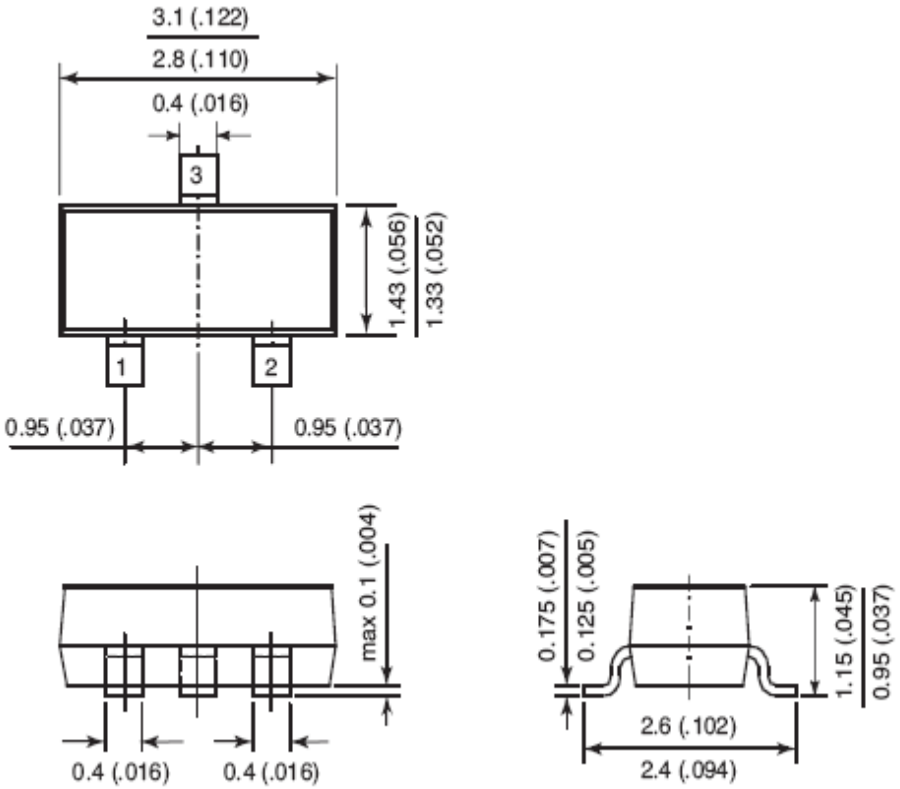


Marking Information:

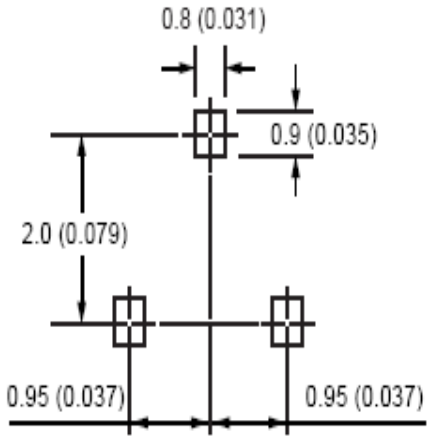


Dimensions in mm (inch)

SOT-23

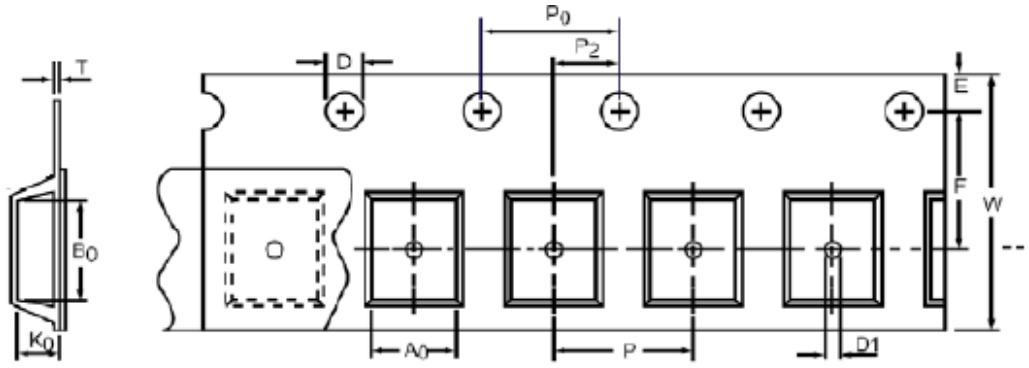


Mounting Pad Layout in mm (inch)



Packing Information:

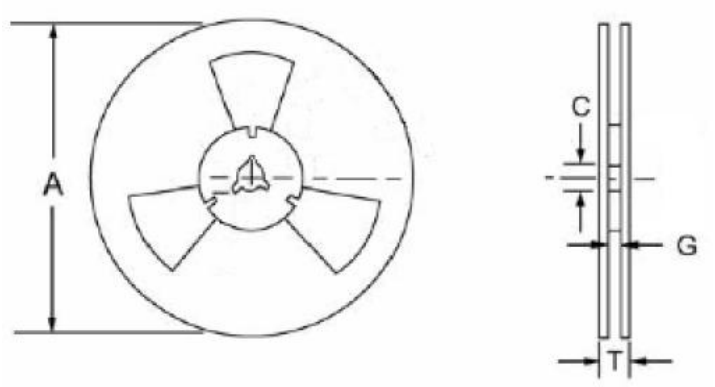
Carrier Tape Dimensions (in mm)



Product Type	A0	B0	K0	D	P0	P
	See Note			1.55±0.5	4.0±0.1	4.0±0.1
SOT-23	**W**	**E**	**T**	**D1**	**F**	**P2**
	8.0+0.3/-0.1	1.75±0.1	0.38±0.1	1.0±0.05	3.5±0.5	2.0±0.05

Note: Symbol A0, B0, K0 are determined by the maximum dimensions of the component size. The clearance between the component and the cavity must be within 0.05 mm (0.002'') min. to 0.50 mm (0.02'') max. for 8 mm tape.

Reel Dimensions (in mm)



A	C	G	T
178.0±2.0	13.0±0.5	8.4±2.0	14.4 max.

Packing Quantity Information:

Quantity	PCS per Inner Box	PCS per Inner Carton
TR70 Tape & Reel	3000/Reel	240000

Inner Carton Size Information:

Cartoon Size
390X270X400 (in mm)

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