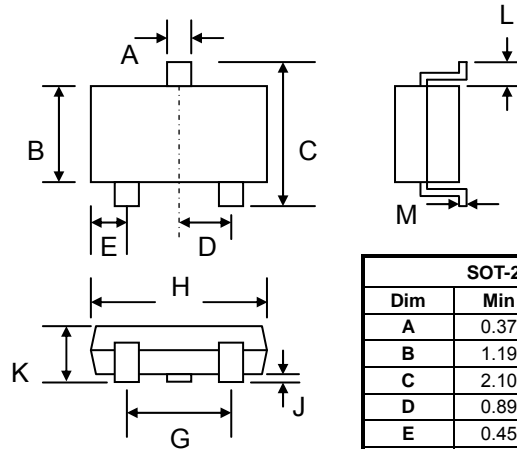


### Features

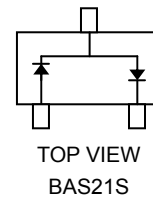
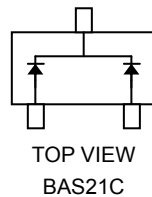
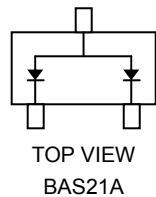
- Dual Diode Com. Anode, Cathode, and Series
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- Plastic Material – UL Recognition Flammability Classification 94V-0



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		

### Mechanical Data

- Case: SOT-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Weight: 0.008 grams (approx.)
- Marking: Device Code, See Page 3
- Mounting Position: Any
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



### Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	250	V
Forward Continuous Current	$I_F$	200	mA
Non-Repetitive Peak Forward Surge Current, 60Hz	$I_{FSM}$	625	mA
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

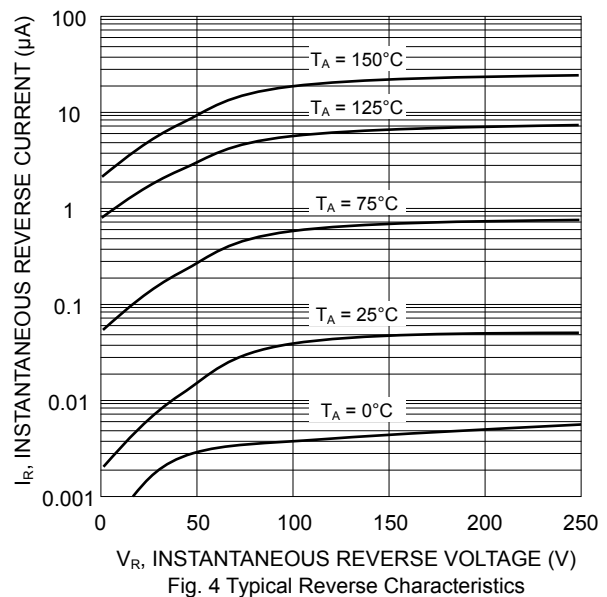
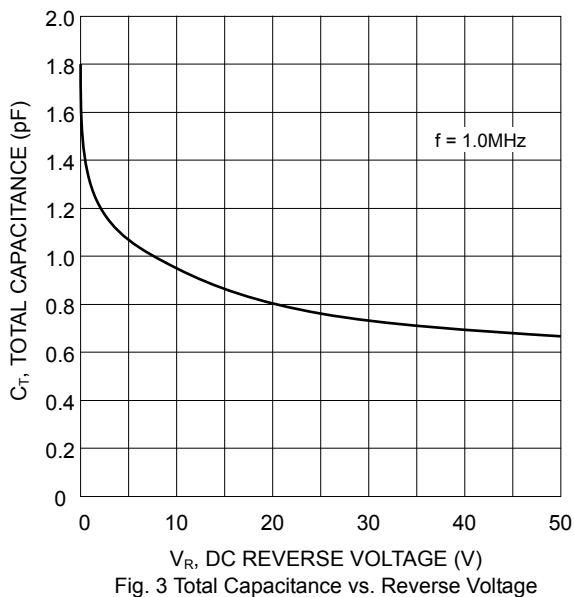
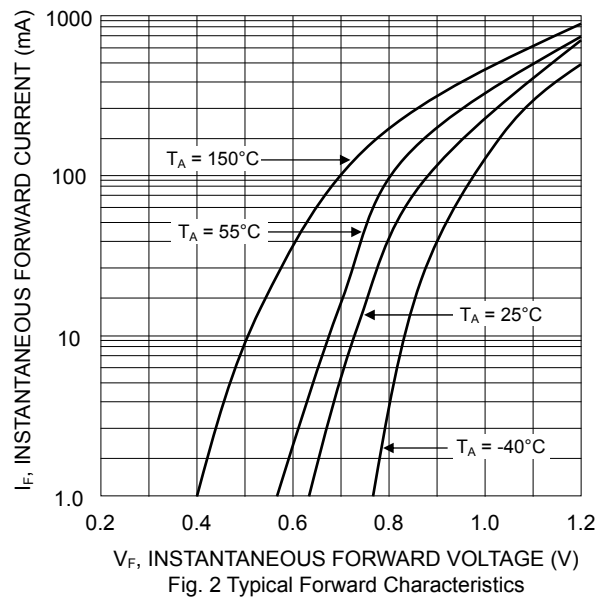
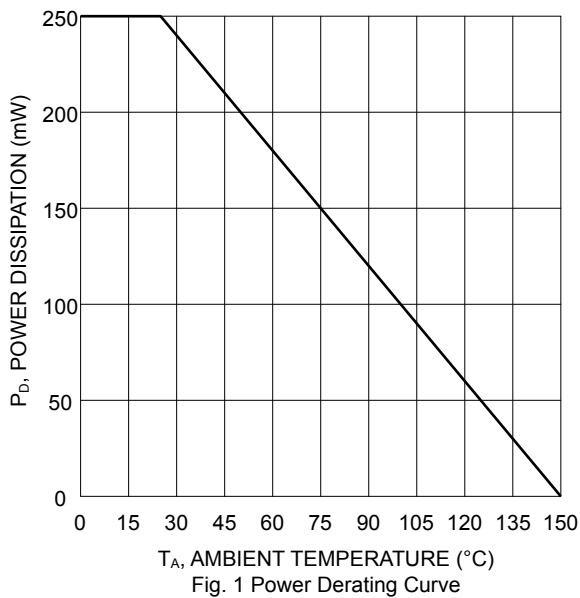
### Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	$P_D$	250	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{JA}$	500	$^\circ\text{C/W}$

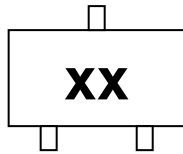
Note: 1. Mounted on FR-4 PC board with 25.4 x 25.4mm copper pads.

## Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage @ $I_R = 100\mu\text{A}$	$V_{(BR)}$	250			V
Forward Voltage Drop @ $I_F = 100\text{mA}$ @ $I_F = 200\text{mA}$	$V_{FM}$			1.0 1.25	V
Peak Reverse Leakage Current @ $V_R = 200\text{V}, T_J = 25^\circ\text{C}$ @ $V_R = 200\text{V}, T_J = 150^\circ\text{C}$	$I_{RM}$			0.1 100	$\mu\text{A}$
Diode Capacitance ( $V_R = 0\text{V}, f = 1.0\text{MHz}$ )	$C_D$			5.0	pF
Reverse Recovery Time ( $I_F = I_R = 30\text{mA}, I_{RR} = 0.1 \times I_R, R_L = 100\Omega$ )	$t_{rr}$			50	nS



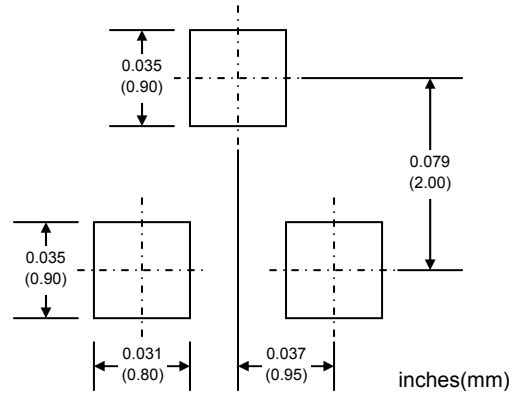
## MARKING INFORMATION



xx = Device Code, See Table Below

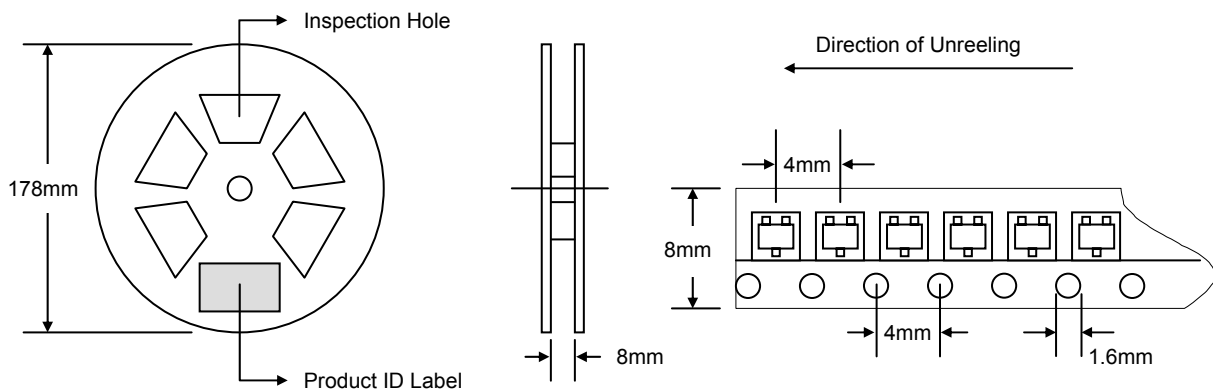
Mfg Site	BAS21A	BAS21C	BAS21S
TW Plant	21A	21C	21S
CN Plant	JS2	JS3	JS4

## RECOMMENDED FOOTPRINT



## PACKAGING INFORMATION

### TAPE & REEL



Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
178	3,000	187 x 187 x 65	15,000	390 x 240 x 420	150,000	10.0

**Note:** 1. Anti-static plastic reel, white, water clear or blue color. Inspection hole might be varied in different alignment.  
2. Components are packed in accordance with EIA standard 481-1 and 481-2.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
BAS21A-T1	SOT-23	3000/Tape & Reel
BAS21C-T1	SOT-23	3000/Tape & Reel
BAS21S-T1	SOT-23	3000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, BAS21A-T1-LF.**

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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