



# DATA SHEET

## BAS21A/C/S

### SURFACE MOUNT, HIGH VOLTAGE, DUAL SWITCHING DIODES

**VOLTAGE** 250 Volts **POWER** 250mWatts

**SOT-23** Unit : inch(mm)

#### FEATURES

- High reverse beardown voltage.
- Fast switching speed.
- Low reverse leakage current.
- Surface mount package ideally suited for automatic insertion.
- Galvanically isolated dual configurations to save board space.
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

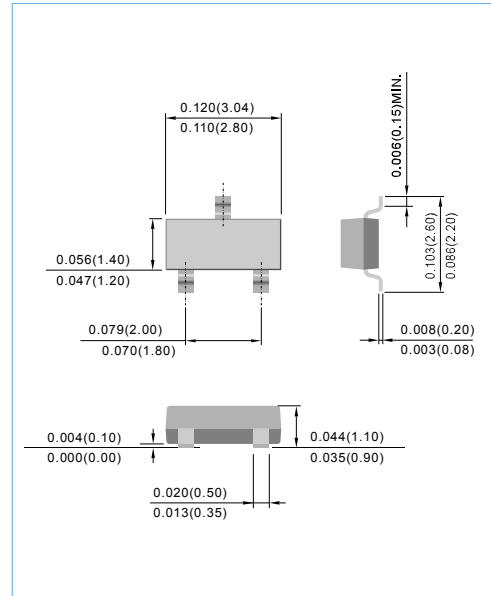
#### MECHANICAL DATA

Case: SOT-23, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.008 grams

Marking : BAS21A:21A, BAS21C:21C, BAS21S:21S

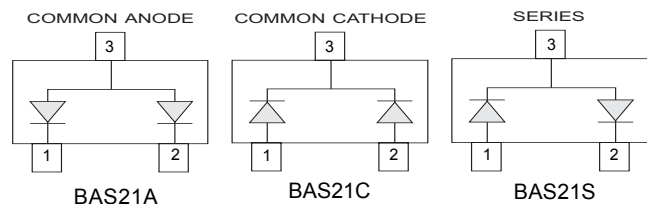


#### ABSOLUTE RATINGS

PARAMETER	Symbol	Value	Units
Maximum Reverse Voltage	$V_R$	250	V
Peak Reverse Voltage	$V_{RRM}$	250	V
Average Rectified Current at Temp=25°C	$I_o$	0.2	A
Non-repetitive Peak Forward Surge Current at t=1.0 μs	$I_{FSM}$	4.0	A

#### THERMAL CHARACTERISTICS

PARAMETER	Symbol	Value	Units
Power Dissipation	$P_{TOT}$	250	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	357	°C/W
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{STG}$	-55 to 150	°C

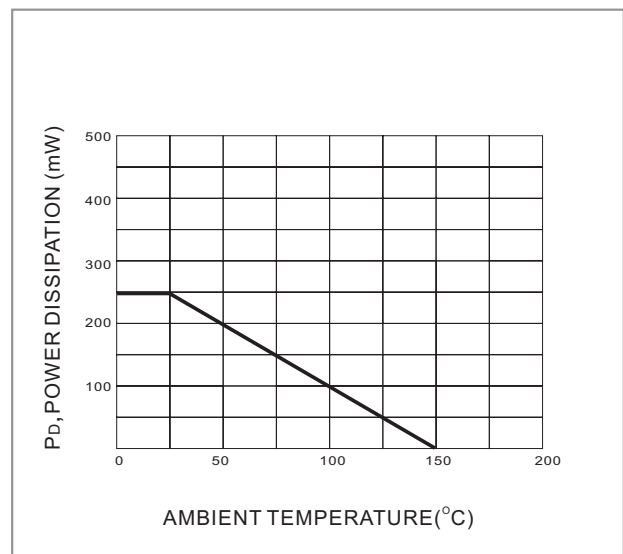
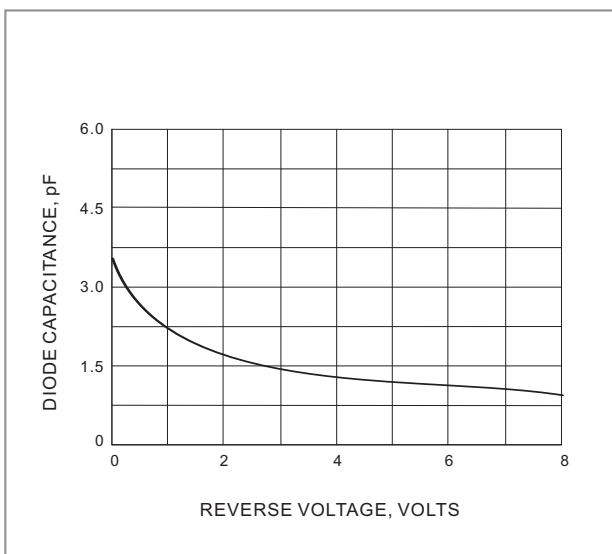
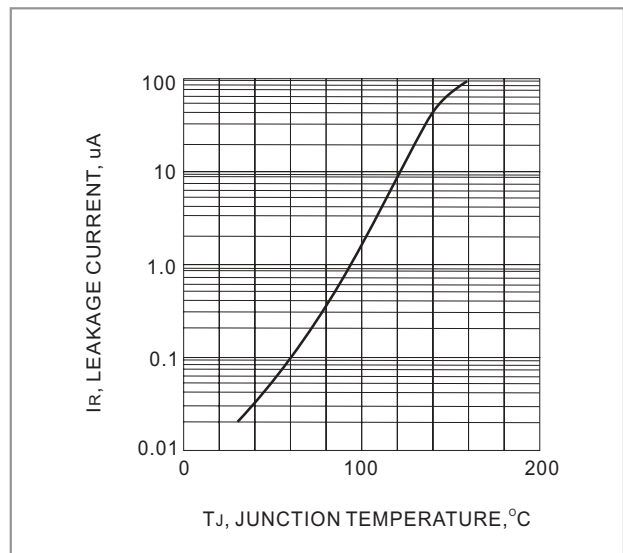
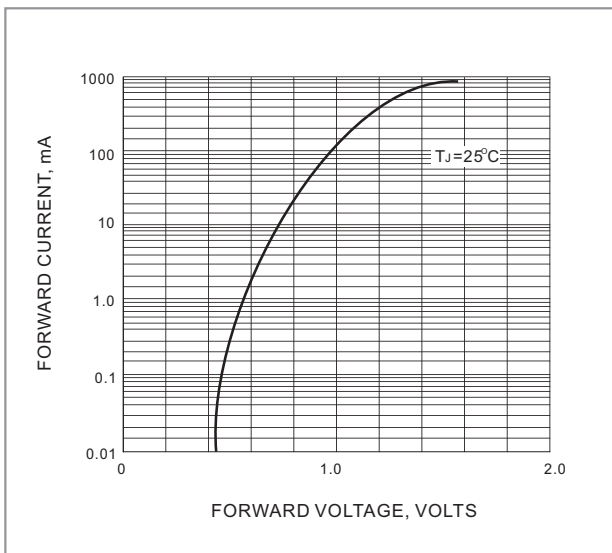




## ELECTRICAL CHARACTERISTICS

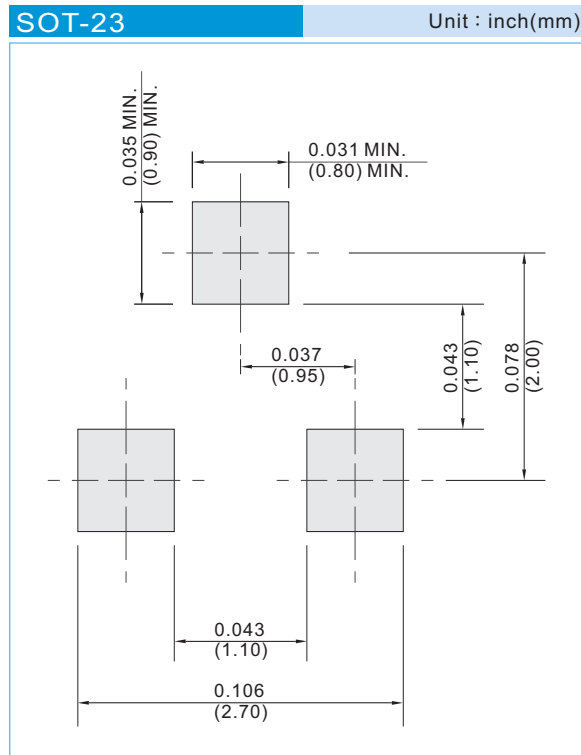
PARAMETER	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100 \mu A$	--	--	250	V
Reverse Current	$I_R$	$V_R=200 V$ $V_R=200 V, T_J = 150^\circ C$	--	--	0.1 100	$\mu A$
Forward Voltage	$V_F$	$I_F=1.0mA$ $I_F=100mA$	--	--	0.70 1.00	V
Maximum Junction Capacitance	$C_J$	$V_R=0V, f=1.0MHz$	--	--	5.0	pF
Reverse Recovery Time	$T_{rr}$	$I_F=I_R=30mA, R_L=100\Omega$	--	--	50	ns

## ELECTRICAL CHARACTERISTICS CURVES





## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel



# BAS21A/C/S

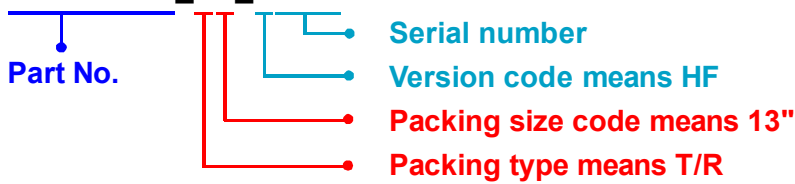
## Part No\_packing code\_Version

BAS21A\_R1\_00001

BAS21A\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



## BAS21A/C/S

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