



# BAS21A~BAS21S

## SURFACE MOUNT, HIGH VOLTAGE, DUAL SWITCHING DIODES

**Voltage**

**250 V**

**Power**

**250 mW**

**SOT-23**

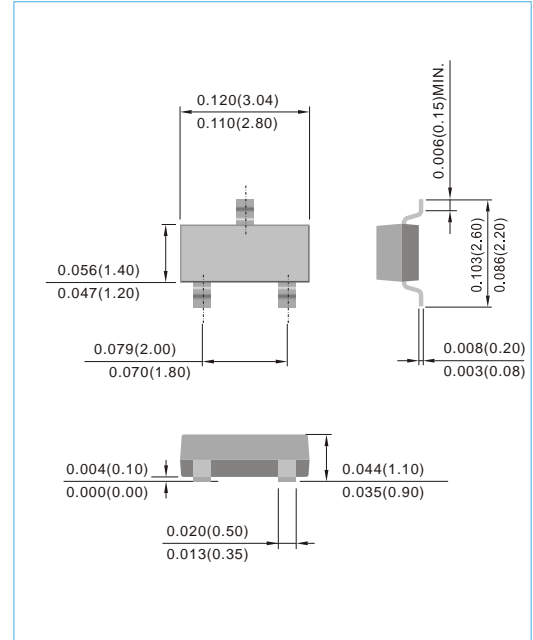
Unit : inch(mm)

### 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.
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive).
- Green molding compound as per IEC61249 Std..(Halogen Free)

### Mechanical Data

- Case: SOT-23 plastic case
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounces, 0.008 grams
- Marking: BAS21A:21A, BAS21C:21C, BAS21S:21S



### ABSOLUTE RATINGS

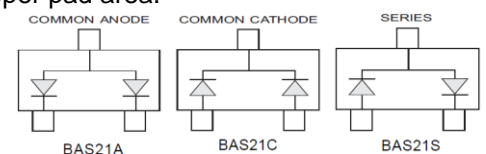
PARAMETER	SYMBOL	VALUE	UNIT
Maximum reverse voltage	V <sub>R</sub>	250	V
Peak reverse voltage	V <sub>RRM</sub>	250	V
Average rectified current at temp=25 °C	I <sub>o</sub>	0.2	A
Non-repetitive peak forward surge current at t=1μs	I <sub>FSM</sub>	4	A

### THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNIT
Power dissipation	P <sub>TOT</sub>	250	mW
Typical thermal resistance (Note 1)	R <sub>θJA</sub>	357	°C/W
Typical thermal resistance (Note 2)	R <sub>θJC</sub>	250	°C/W
	R <sub>θJL</sub>	285	
Junction temperature range	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C

Note : 1.Mounted on a FR-4 PCB, single-sided copper, mini pad.

2. Mounted on a FR-4 PCB, single-sided copper,with 100cm<sup>2</sup> copper pad area.

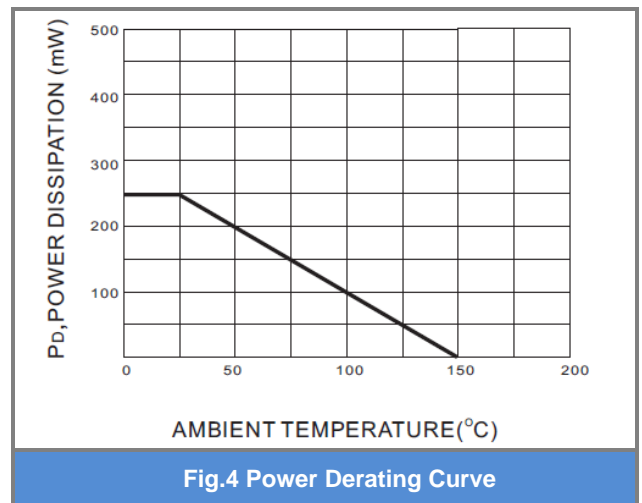
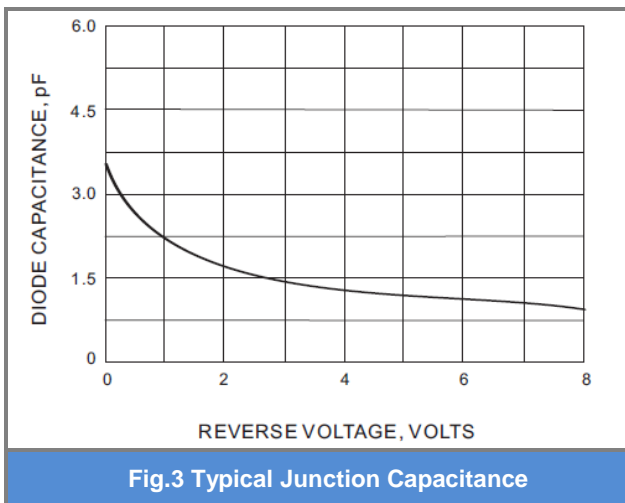
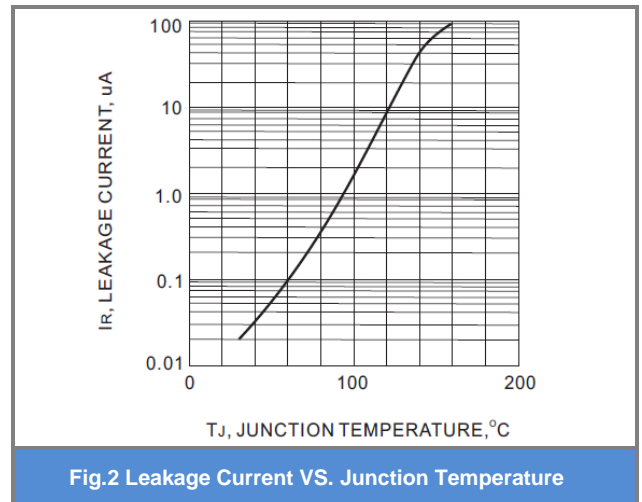
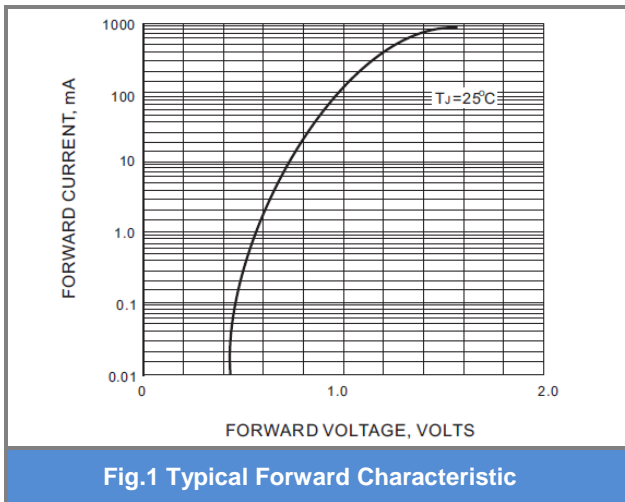




# BAS21A~BAS21S

ELECTRICAL CHARACTERISTICS ( $T_J=25^\circ\text{C}$ , unless otherwise noted)

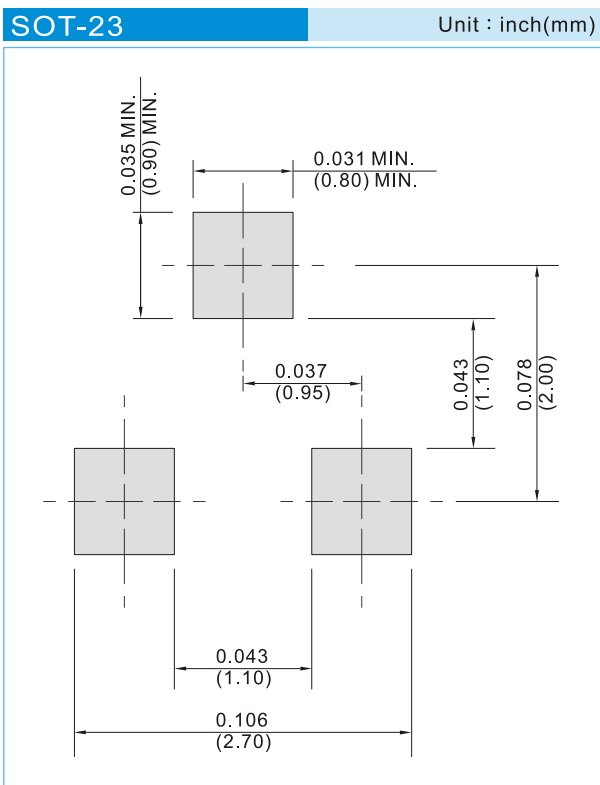
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP	MAX.	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	250	-	-	V
Reverse current	$I_R$	$V_R=200\text{V}$ $V_R=200\text{V } T_J=150^\circ\text{C}$	-	-	0.1 100	$\mu\text{A}$
Forward voltage	$V_F$	$I_F=1\text{mA}$ $I_F=100\text{mA}$	-	-	0.7 1	V
Maximum junction capacitance	$C_J$	$V_R=0\text{V}, f=1\text{MHz}$	-	-	5	pF
Reverse recovery time	$T_{RR}$	$I_F = I_R=30\text{mA}$ $R_L=100\Omega$	-	-	50	ns





# BAS21A~BAS21S

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



## BAS21A~BAS21S

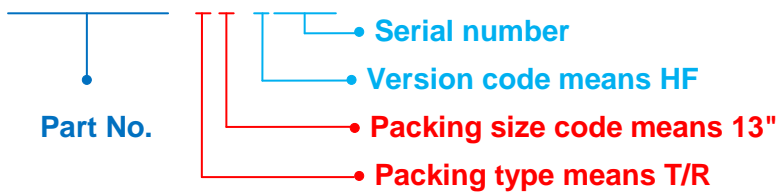
Part No\_packing code\_Version

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)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



## BAS21A~BAS21S

### Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Panjit:](#)

[BAS21S\\_R2\\_00001](#) [BAS21S\\_R1\\_00001](#) [BAS21S\\_R1\\_10001](#) [BAS21S\\_R2\\_10001](#)