



# DATA SHEET

## BAS21A/C/S

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

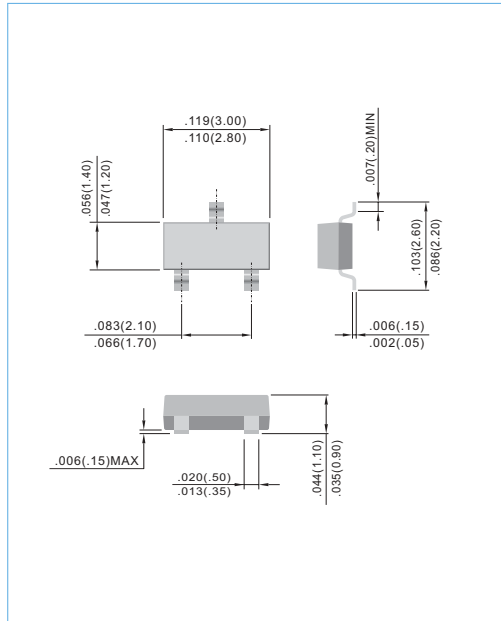
<b>VOLTAGE</b>	<b>250 Volts</b>	<b>POWER</b>	<b>250mWatts</b>	<b>SOT-23</b>	Unit: inch (mm)
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#### FEATURES

- 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.
- In compliance with EU RoHS 2002/95/EC directives

#### MECHANICAL DATA

Case: SOT-23, Plastic  
 Terminals: Solderable per MIL-STD-750, Method 2026  
 Approx. Weight: 0.008 gram  
 Marking : BAS21A:21A, BAS21C:21C, BAS21S:21S

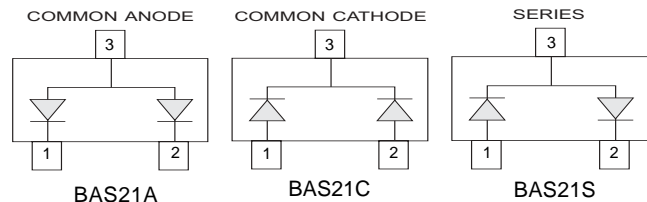


#### ABSOLUTE RATINGS

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

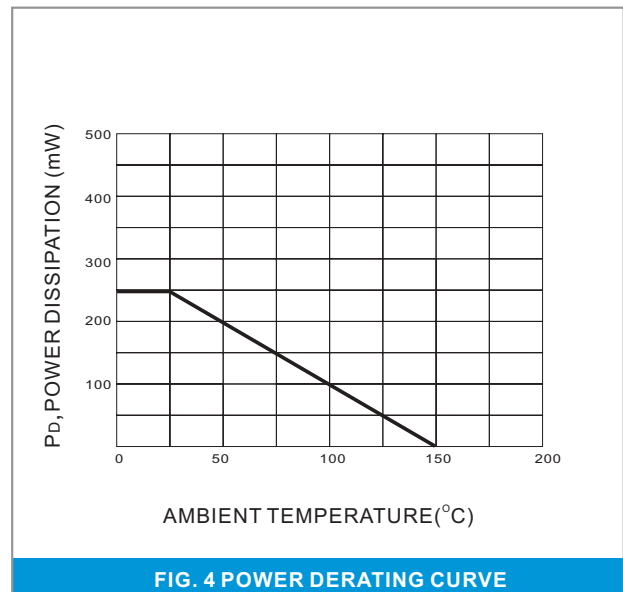
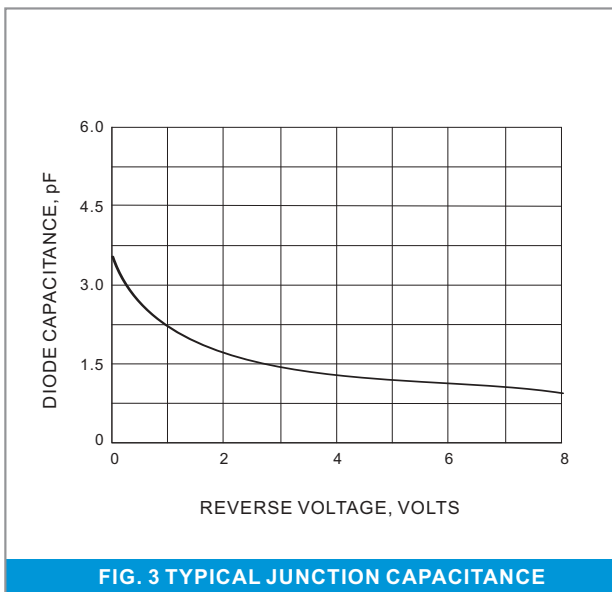
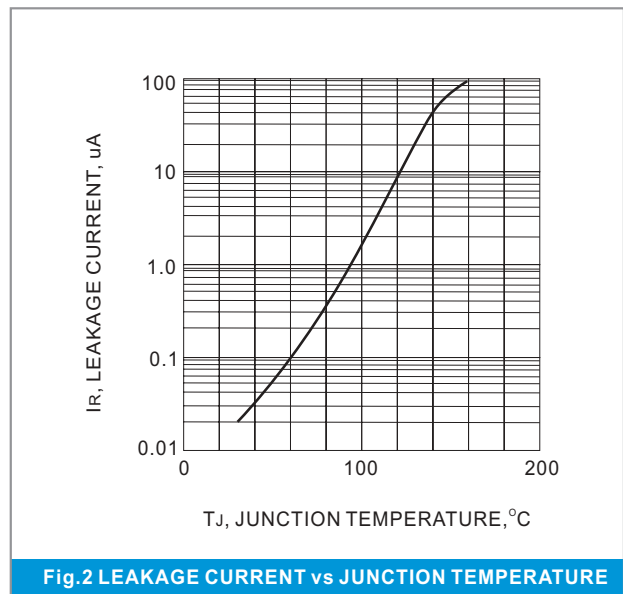
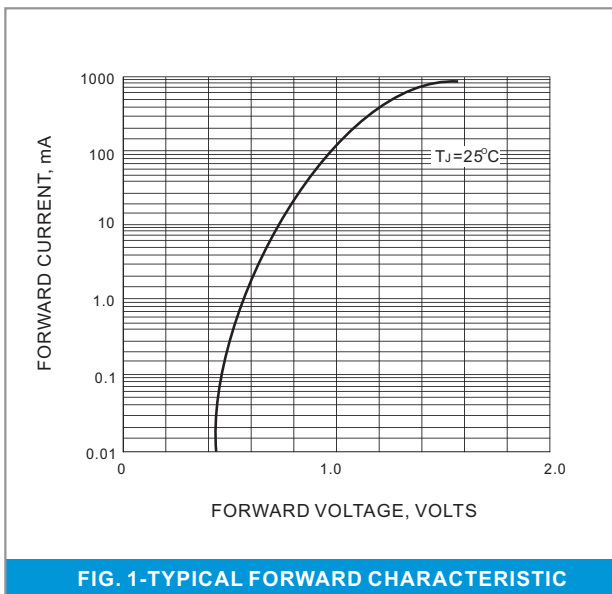




## ELECTRICAL CHARACTERISTICS

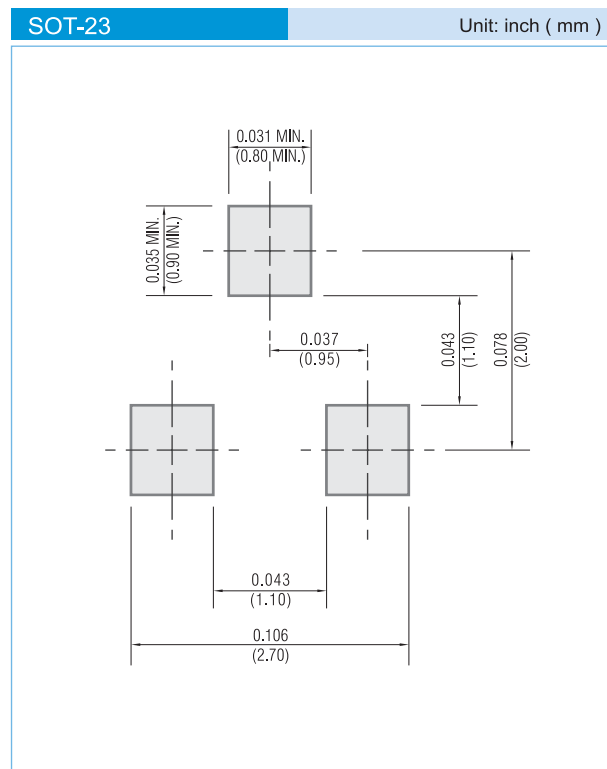
PARAMETER	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100 \mu A$	--	--	250	V
Reverse Current	$I_R$	$V_R=200 V$ $V_R=200 V, T_J = 150^\circ C$	--	--	0.1 100	$\mu A$
Forward Voltage	$V_F$	$I_F=1.0mA$ $I_F=100mA$	--	--	0.70 1.00	V
Maximum Junction Capacitance	$C_J$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

## LEGAL STATEMENT

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