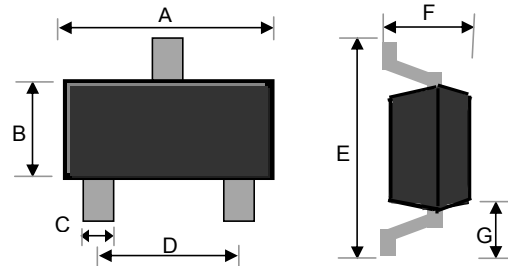


**Small Signal Diode**



SOT-23



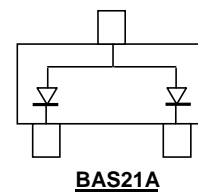
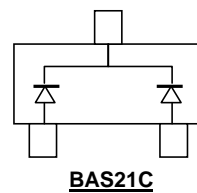
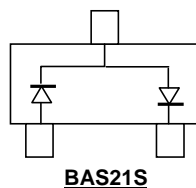
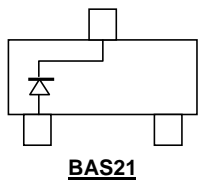
**Features**

- ✧Fast switching speed
- ✧Surface device type mounting
- ✧Moisture sensitivity level 1
- ✧Matte Tin(Sn) lead finish with Nickel(Ni) underplate
- ✧Pb free version and RoHS compliant
- ✧Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

**Mechanical Data**

- ✧Case :SOT-23 small outline plastic package
- ✧Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧High temperature soldering guaranteed: 260°C/10s
- ✧Weight : 0.008gram (approximately)

Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.80	3.00	0.110	0.118
B	1.20	1.40	0.047	0.055
C	0.30	0.50	0.012	0.020
D	1.80	2.00	0.071	0.079
E	2.25	2.55	0.089	0.100
F	0.90	1.20	0.035	0.043
G	0.550 REF		0.022 REF	



**Ordering Information**

Part No.	Package	Packing
BAS21/A/C/S RF	SOT-23	3Kpcs/ 7" Reel

**Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

**Maximum Ratings**

Type Number	Symbol	Value	Units
Power Dissipation	$P_D$	225	mW
Repetitive Peak Reverse Voltage	$V_{RRM}$	250	V
Repetitive Peak Forward Current	$I_{FRM}$	625	mA
Mean Forward Current	$I_o$	200	mA
Non-Repetitive Peak Forward Surge Current (Note 1)	$I_{FSM}$	1	A
Thermal Resistance (Junction to Ambient) (Note 2)	$R\theta_{JA}$	500	°C/W
Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150	°C

**Electrical Characteristics**

Type Number	Symbol	Min	Max	Units
Reverse Breakdown Voltage $I_R=100\mu A$	$V_{(BR)}$	250	-	V
Forward Voltage $I_F=100mA$	$V_F$	-	1.00	V
		-	1.25	V
Reverse Leakage Current $V_R=200V$	$I_R$	-	100	$\mu A$
Junction Capacitance $V_R=1V, f=1.0MHz$	$C_J$	-	5	pF
Reverse Recovery Time $I_F=I_R=10mA, R_L=100\Omega, I_{RR}=1mA$	$T_{rr}$	-	50.0	ns

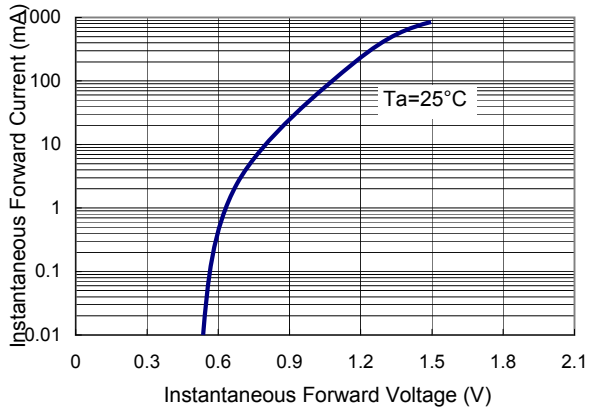
Notes:1. Test Condition : 8.3ms Single half Sine-Wave Superimposed on Rated Load (JEDEC Method) Pulse Width=1  $\mu$ sec

Notes:2. Valid provided that electrodes are kept at ambient temperature

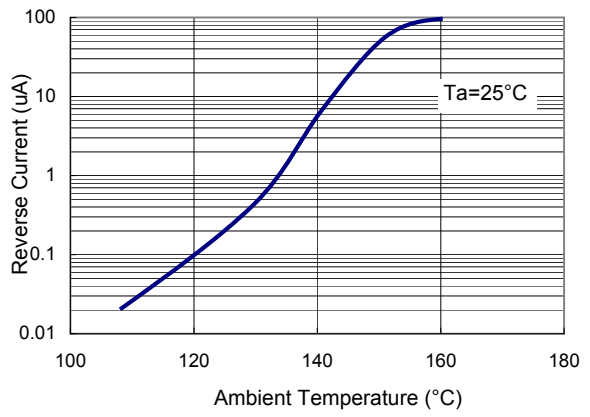
**Small Signal Diode**

**Rating and Sharacteristic Curves**

**FIG 1 Typical Forward Characteristics**



**FIG 2 Reverse Current vs Reverse Voltage**



**FIG 3 Admissible Power Dissipation Curve**

