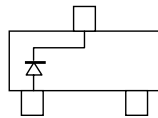
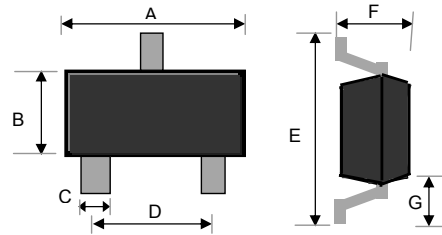


Small Signal Diode



SOT-23



Features

- ✧ Low power loss, high current capability, low V_f
- ✧ 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	1.50	1.70	0.059	0.067
B	3.55	3.85	0.140	0.152
C	0.45	0.65	0.018	0.026
D	2.60	2.80	0.102	0.11
E	1.05	1.25	0.041	0.049
F	0.08	0.15	0.003	0.006
G	0.02 REF		0.50 REF	

Ordering Information

Part No.	Package	Packing
BAS116 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}	75	V
Mean Forward Current	I_o	200	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0s$	I_{FSM}	500	mA
Thermal Resistance (Junction to Ambient) (Note 1)	$R\theta_{JA}$	330	°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	$V_{(BR)}$	75	-	V
Forward Voltage	$I_R = 100\mu A$	-	0.9	V
	$I_F = 1.0mA$	-	1.0	
	$I_F = 10mA$	-	1.1	
	$I_F = 150mA$	-	1.25	
Reverse Leakage Current	$V_R = 75V$	I_R	5	nA
Junction Capacitance	$V_R = 0, f = 1.0MHz$	C_J	2.0	pF
Reverse Recovery Time (Note 2)		T_{rr}	3.0	ns

Notes:1. Valid provided that electrodes are kept at ambient temperature

Notes:2. Reverse Recovery Test Conditions: $I_F = 10mA$, $I_R = 10mA$, $R_L = 100\Omega$, $I_{RR} = 1mA$

Small Signal Diode

Rating and Sharacteristic Curves

FIG 1 Typical Forward Characteristics

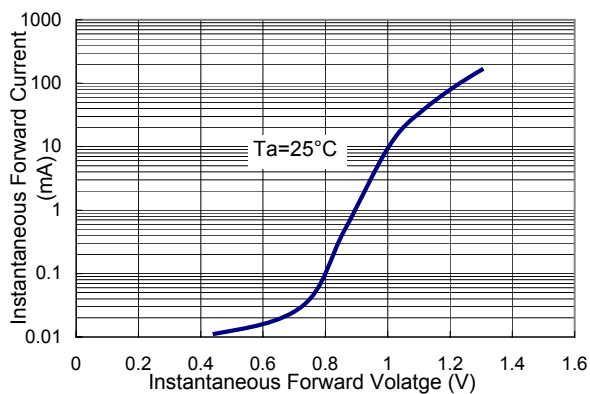


FIG 2 Reverse Current vs Reverse Voltage

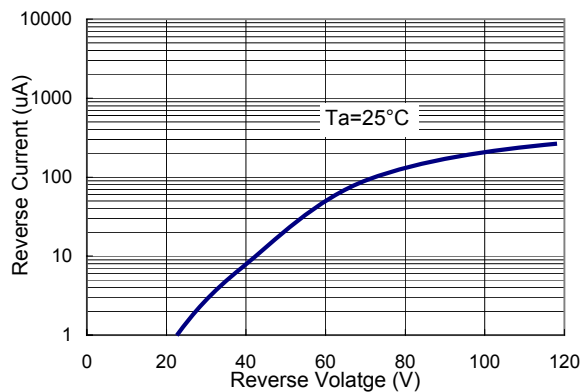


FIG 3 Admissible Power Dissipation Curve

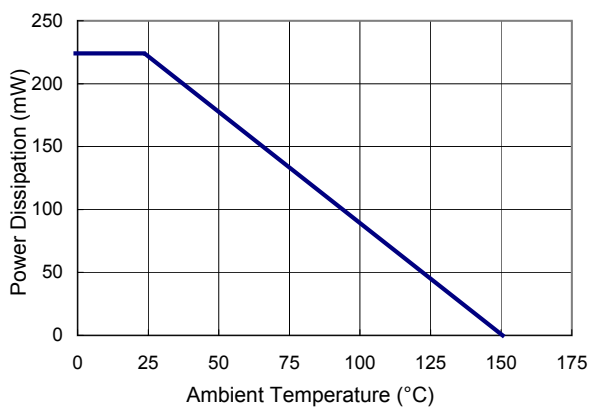


FIG 4 Typical Junction Capacitance

