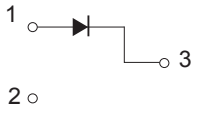
GOOD-ARK
SEMICONDUCTOR

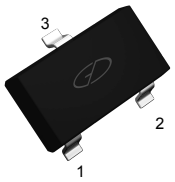
BAS116
Switching Diode

Features

- Low leakage current
- For general purpose switching
- Medium speed switching times



Schematic Diagram



SOT-23

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Forward Continuous Current	I_{FM}	200	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2	A
Power Dissipation	P_D	225	mW
Junction Temperature	T_J	-55 to +150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	I_R=100μA	75	-	-	V
Forward Voltage	V_{F1}	I_F=1mA	-	-	0.9	V
	V_{F2}	I_F=10mA	-	-	1	V
	V_{F3}	I_F=50mA	-	-	1.1	V
	V_{F4}	I_F=150mA	-	-	1.25	V
Reverse Current	I_R	V_R=75V	-	-	5	nA
Diode Capacitance	C_{tot}	V_R=0V,f=1MHz	-	2	-	pF
Reverse Recovery Time	t_{rr}	IF=IR=10mA,Irr=0.1×IR , R_L=100Ω	-	-	3	μs

Typical Characteristics Curves

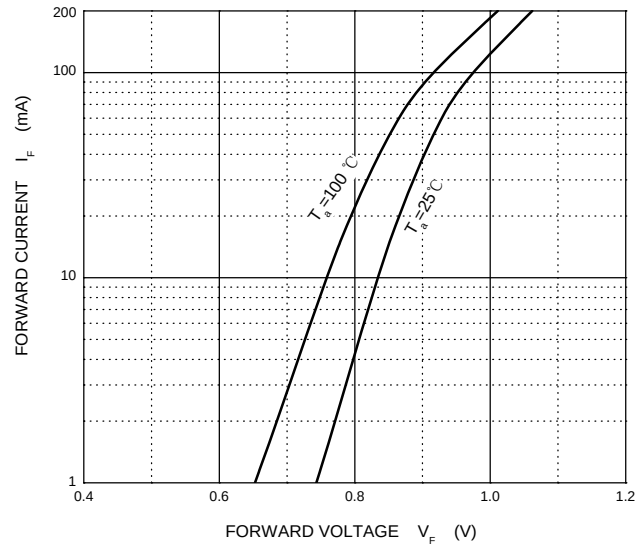


Figure 1. Forward Characteristics

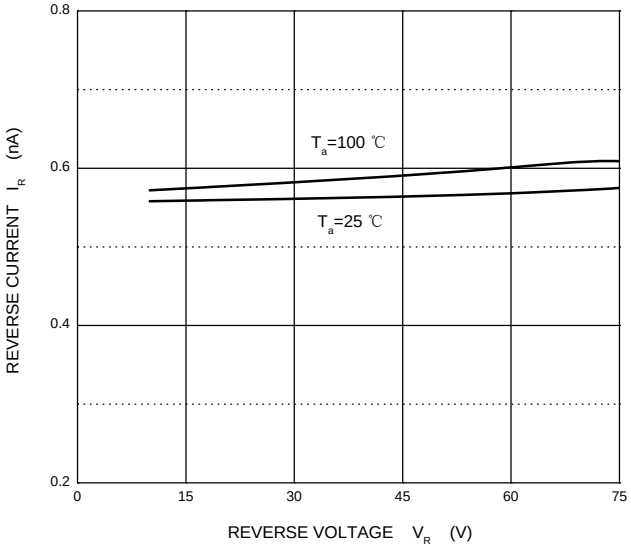


Figure 2. Reverse Characteristics

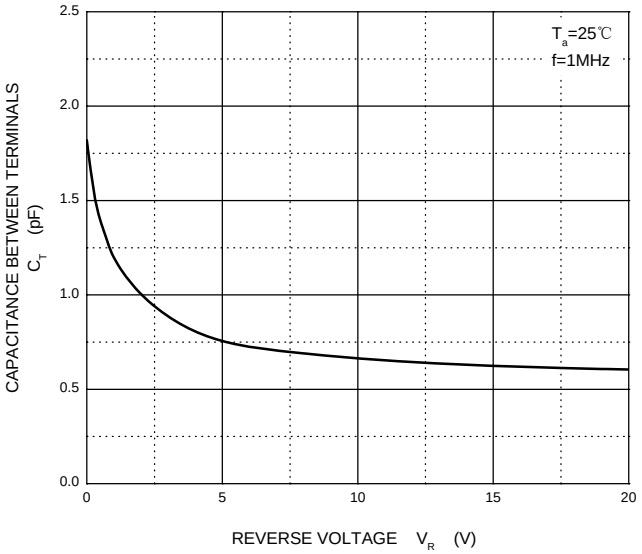


Figure 3. Capacitance Characteristics

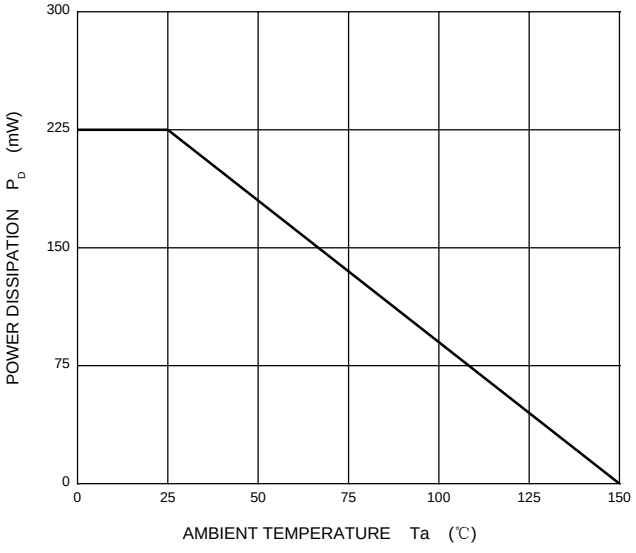
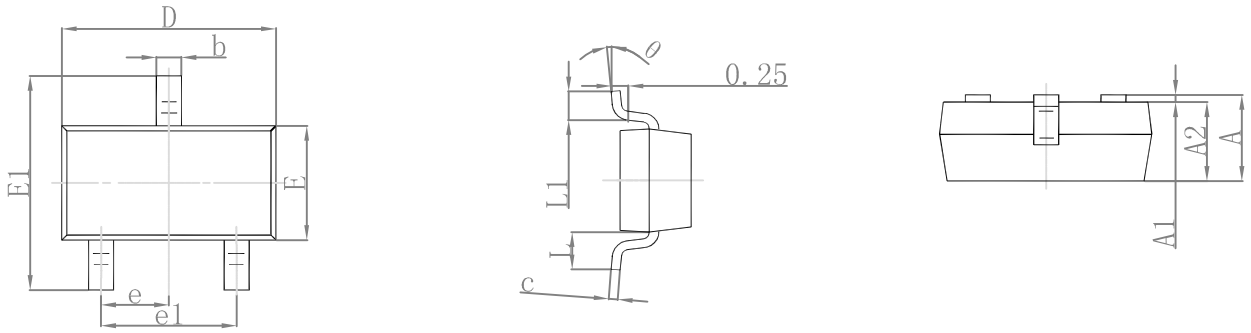


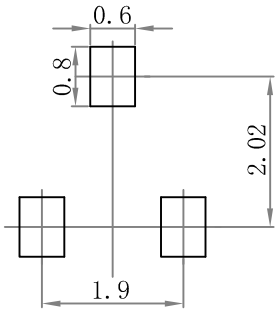
Figure 4. Power Derating Curve

Package Outline Dimensions SOT-23



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.