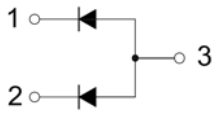
GOOD-ARK
SEMICONDUCTOR

BAW56
Switching Diode

Features

- Fast switching speed
- For general purpose switching applications
- High conductance
- Low reverse leakage



Schematic Diagram



SOT-23

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

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	70	V
Forward Current	I_F	200	mA
Non-Repetitive Peak Forward Surge Current @T_P=1us	I_{FSM}	2	A
Power Dissipation	P_D	225	mW
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	500	°C/W
Operating Junction Temperature Range	T_J	-55 To +150	°C
Storage Temperature Range	T_{STG}	-55 To +150	°C

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

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse Breakdown Voltage	V_R	I_R=100μA	70	-	V
Forward Voltage	V_F	I_F=1mA	-	0.72	V
		I_F=10mA	-	0.86	V
		I_F=50mA	-	1	V
		I_F=150mA	-	1.25	V
Reverse Current	I_R	V_R=70V	-	2.5	μA
Capacitance Between Terminals	C_T	V_R=0, f=1MHz	-	1.5	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=10mA, R_L = 100Ω I_{rr}=0.1xI_R	-	6	ns

Ratings and Characteristic Curves

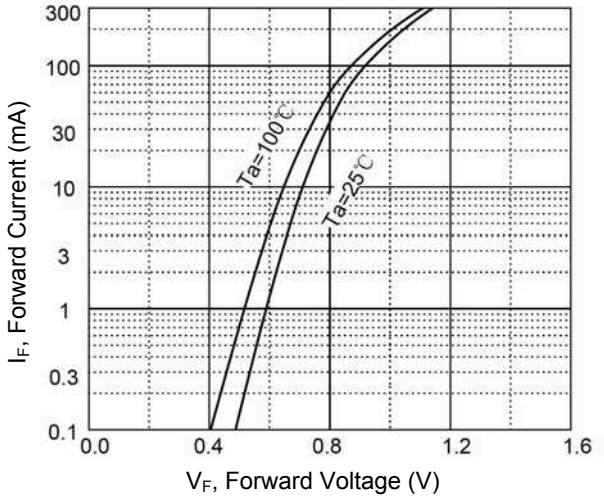


Figure 1. Forward Characteristics

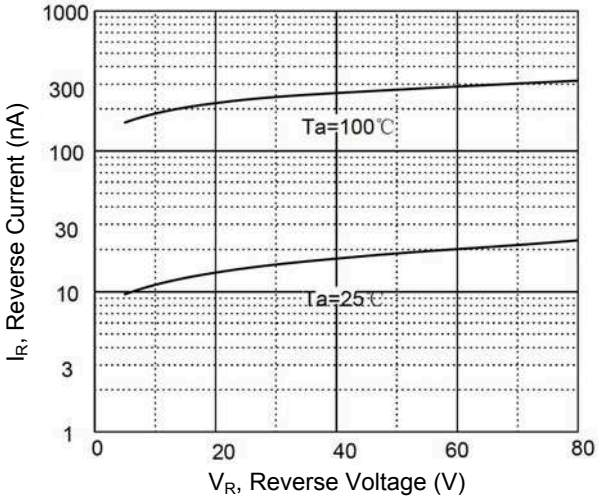


Figure 2. Reverse Characteristics

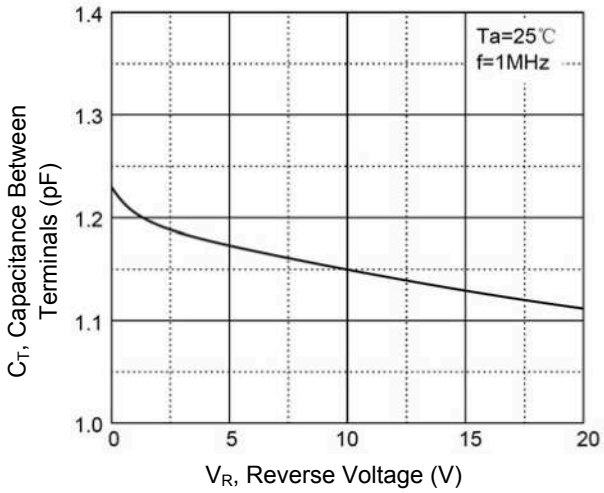


Figure 3. Capacitance Characteristics

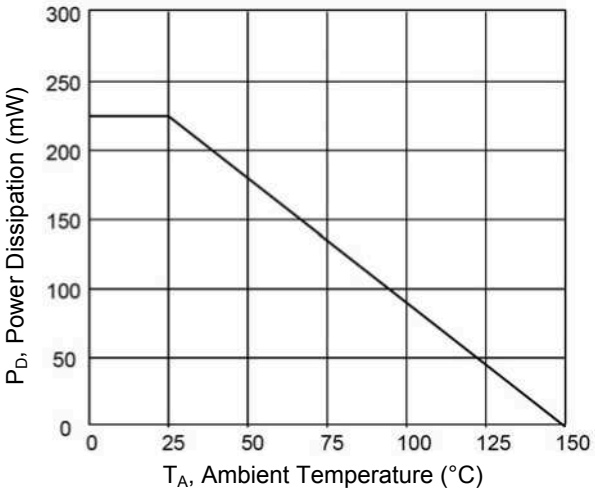
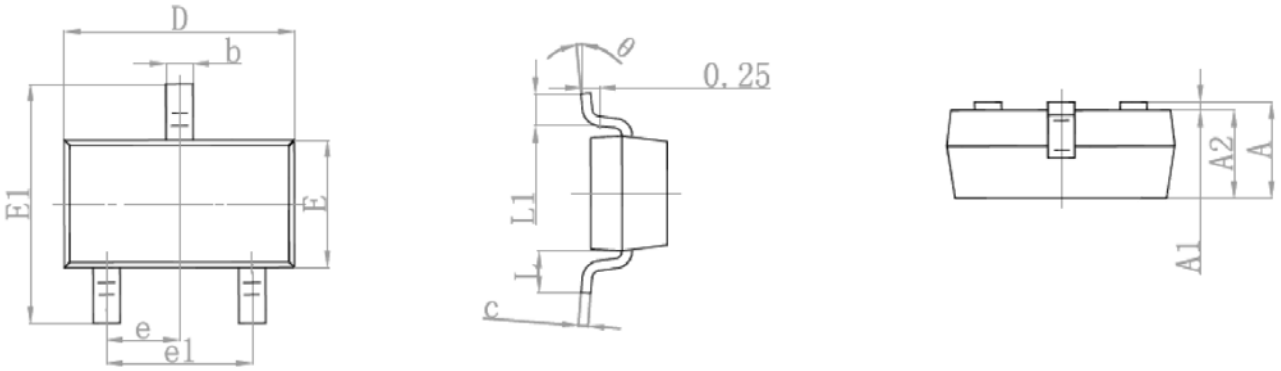


Figure 4. Power Derating Curve

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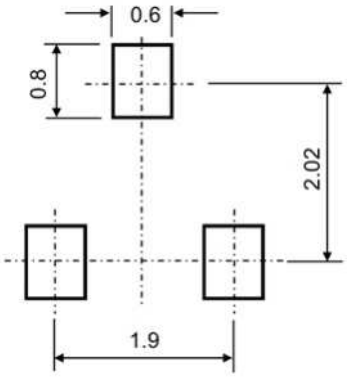
BAW56
Switching Diode

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°

Recommended Pad Layout



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

Order Information

Device	Package	Marking	Packaging	SPQ
BAW56	SOT-23	A1	Tape & Reel	3,000 Pcs / Reel