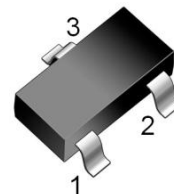


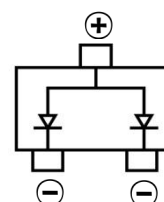
SWITCHING DIODE

FEATURES

- Fast Switching
- High Conductance
- Surface Mount device
- For General Purpose Switching Applications



SOT-23



BAW56:A1

MECHANICAL DATA

- Case: SOT-23
- Case Material: Molded Plastic. UL Flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.008 grams (approximate)

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

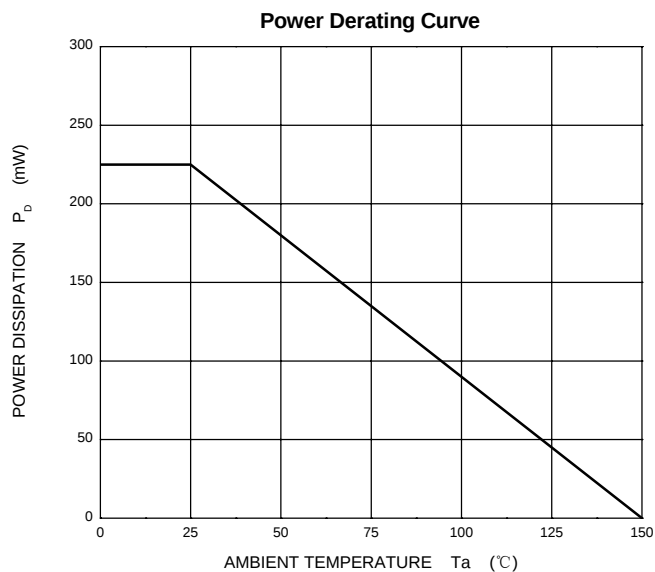
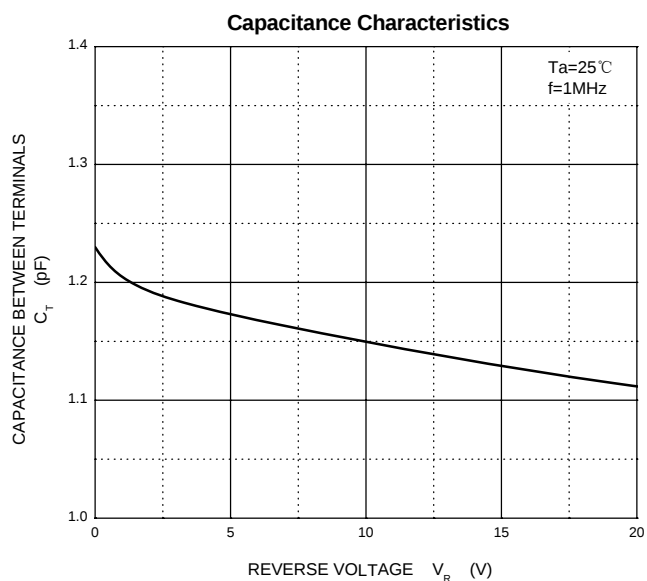
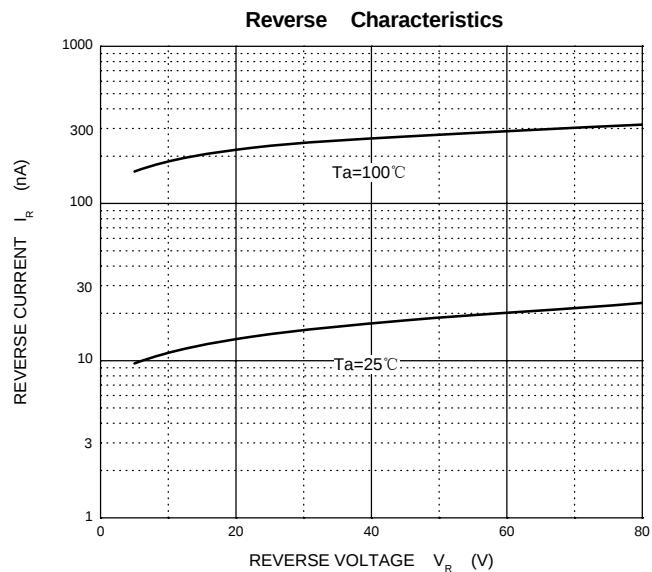
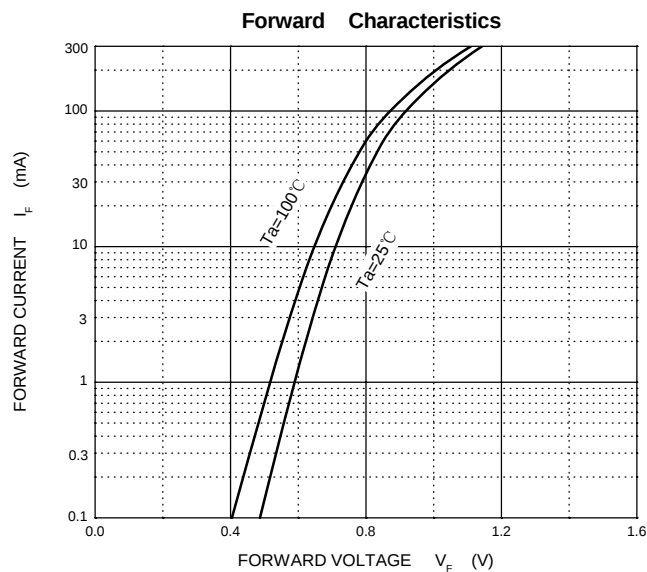
Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	80	V
Forward Current	I_F	100	mA
Non-Repetitive Peak Forward Surge Current @ $t @ = 8.3\text{ms}$	I_{FSM}	2.0	A
Power Dissipation	P_D	150	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	556	$^\circ\text{C/W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	80		V	$I_R = 100\mu\text{A}$
Reverse voltage leakage current	I_{R1}		50	nA	$V_R = 20\text{V}$
	I_{R2}		1	μA	$V_R = 80\text{V}$
Forward voltage	V_{F1}		0.65	V	$I_{F1} = 1\text{ mA}$
	V_{F2}		0.70	V	$I_{F2} = 5\text{ mA}$
	V_{F3}		0.80	V	$I_{F3} = 10\text{mA}$
	V_{F4}		0.90	V	$I_{F4} = 50\text{ mA}$
	V_{F5}		1.00	V	$I_{F5} = 100\text{ mA}$
	V_{F6}		1.20	V	$I_{F6} = 150\text{ mA}$
Diode capacitance	C_D		3.0	pF	$V_R = 0\text{V}, f = 1\text{MHz}$
Reverse recovery time	T_{rr}		4	nS	$I_F = I_R = 10\text{mA}$ $I_{rr} = 0.1 \times I_R$

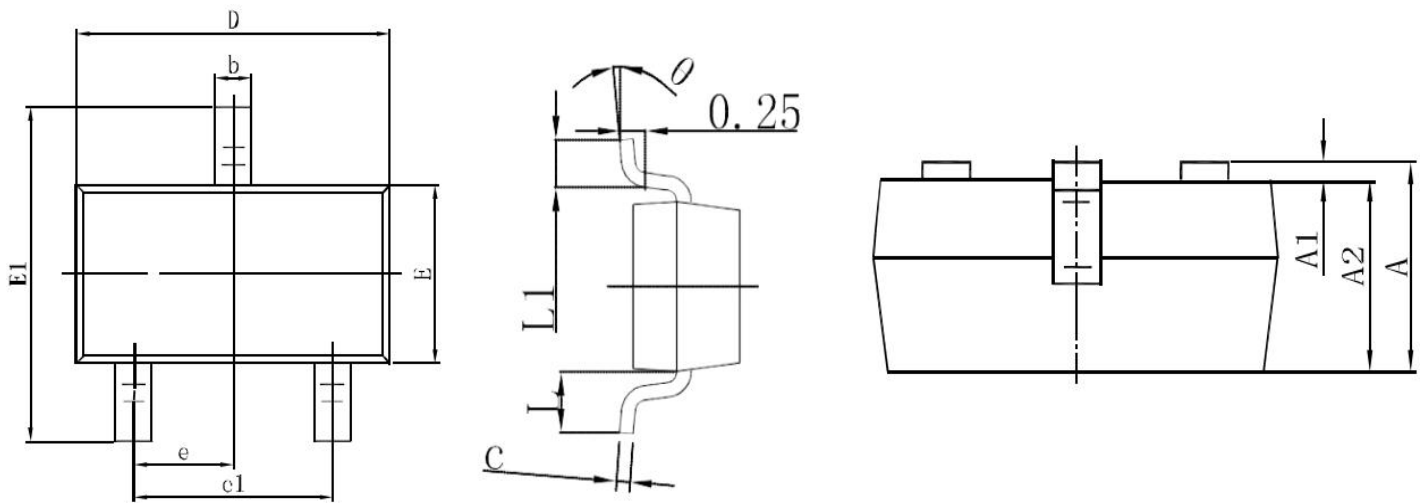
SWITCHING DIODE

Typical Characteristics



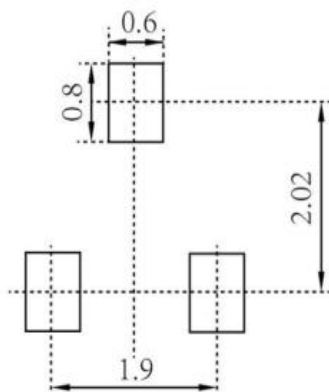
SWITCHING DIODE

SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.354	0.453
A1	0.000	0.100	0.000	0.039
A2	0.900	1.050	0.354	0.413
b	0.300	0.500	0.118	0.197
c	0.080	1.150	0.031	0.453
D	2.900	3.100	1.142	1.220
E	1.200	1.400	0.472	0.551
E1	2.250	2.550	0.886	1.004
e	0.95REF		0.374REF	
e1	1.800	2.000	0.709	0.787
L	0.55REF		0.215REF	
L1	0.300	0.500	0.118	0.197

SOT-23 Suggested Pad Layout



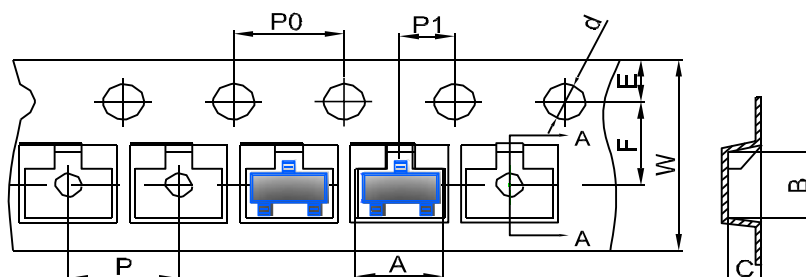
Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

SWITCHING DIODE

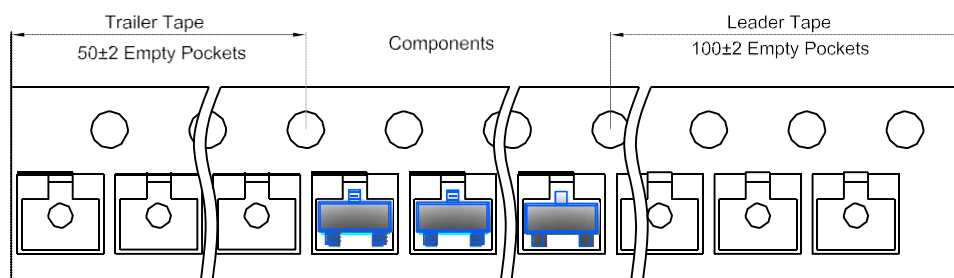
SOT-23 Tape and Reel

SOT-23 Embossed Carrier Tape

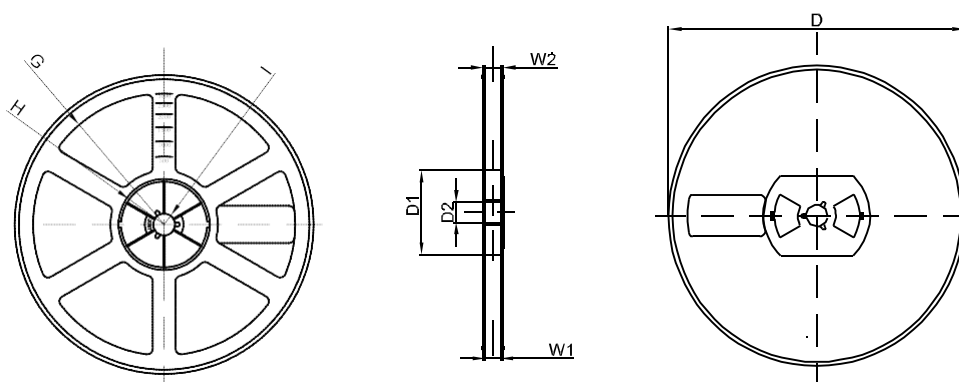


	DIMENSIONS ARE IN MILLIMETER									
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SOT-23 Tape Leader and Trailer



SOT-23 Reel



	DIMENSIONS ARE IN MILLIMETER							
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	9.50	12.30
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1