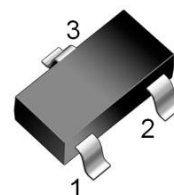
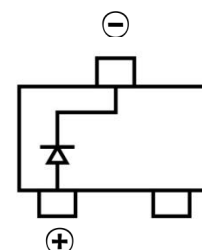


SWITCHING DIODE
FEATURES

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


SOT-23

MECHANICAL DATA

- Case: SOT-23
- Case Material: Molded Plastic. UL Flammability
- Classification Rating: 94V-0
- Weight: 0.008 grams (approximate)

MARKING: KA2
MAXIMUM RATINGS ($T_A = 25^{\circ}\text{C}$ unless otherwise noted)

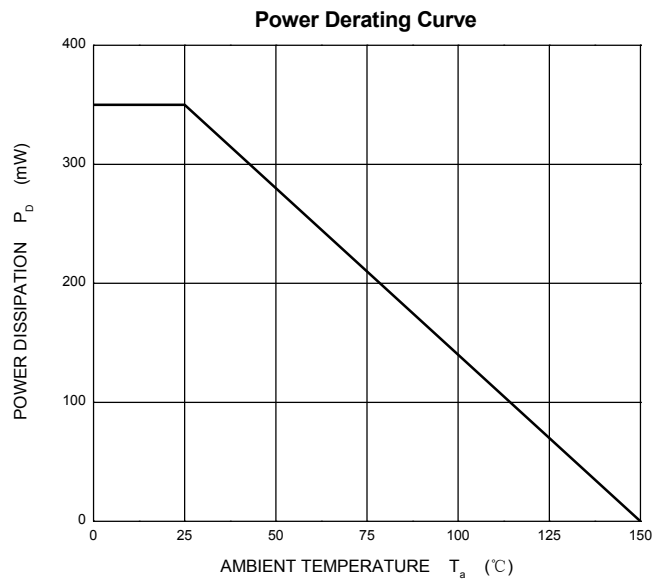
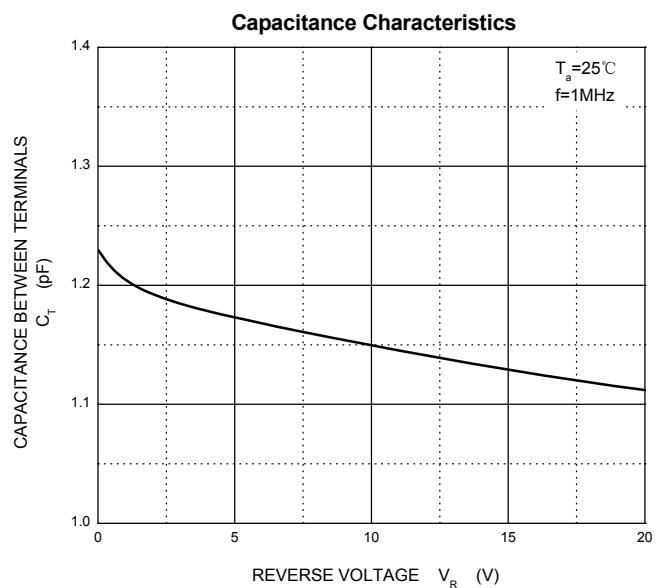
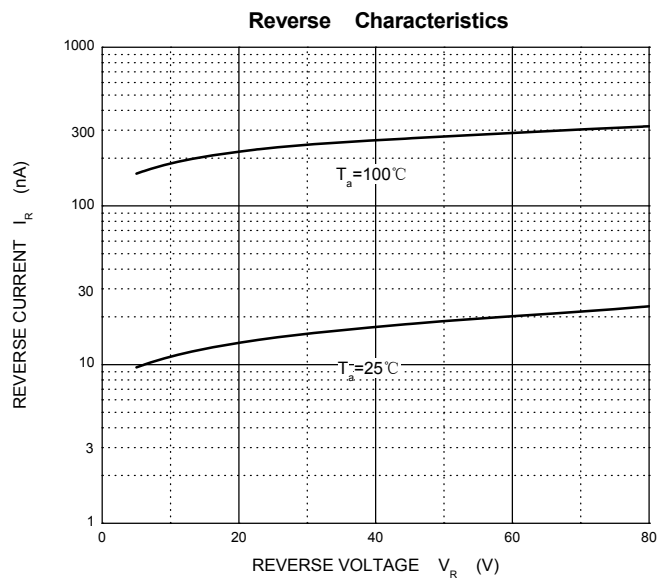
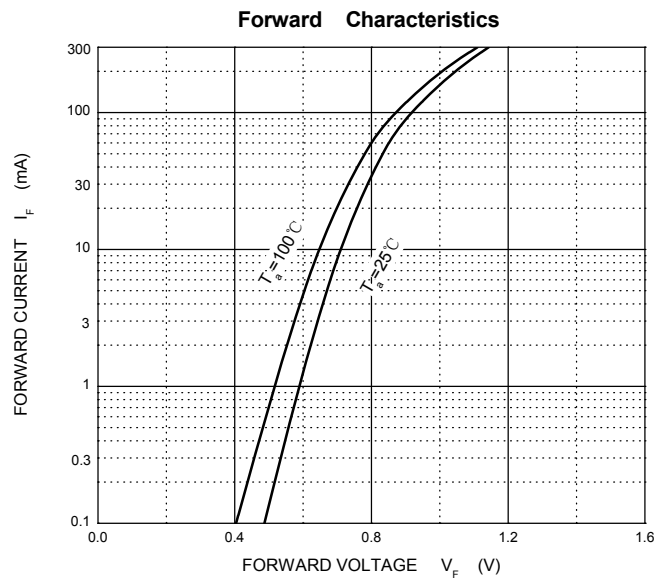
Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
DC Blocking Reverse Voltage	V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Current	I_F	300	mA
Average Rectified Output Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @ $t @ = 8.3\text{ms}$	I_{FSM}	2.0	A
Power Dissipation	P_D	350	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$
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	$V_{(BR)}$	75		V	$I_R = 100\mu\text{A}$
Reverse voltage leakage current	I_R		2.5	μA	$V_R = 75\text{V}$
Forward voltage	V_F		1	V	$I_F = 50\text{mA}$
Diode capacitance	C_D		2	pF	$V_R = 0\text{V}, f = 1\text{MHz}$
Reverse recovery time	T_{rr}		4	nS	$I_F = I_R = 10\text{mA}$ $I_{rr} = 0.1 \times I_R$ $R_L = 100\Omega$

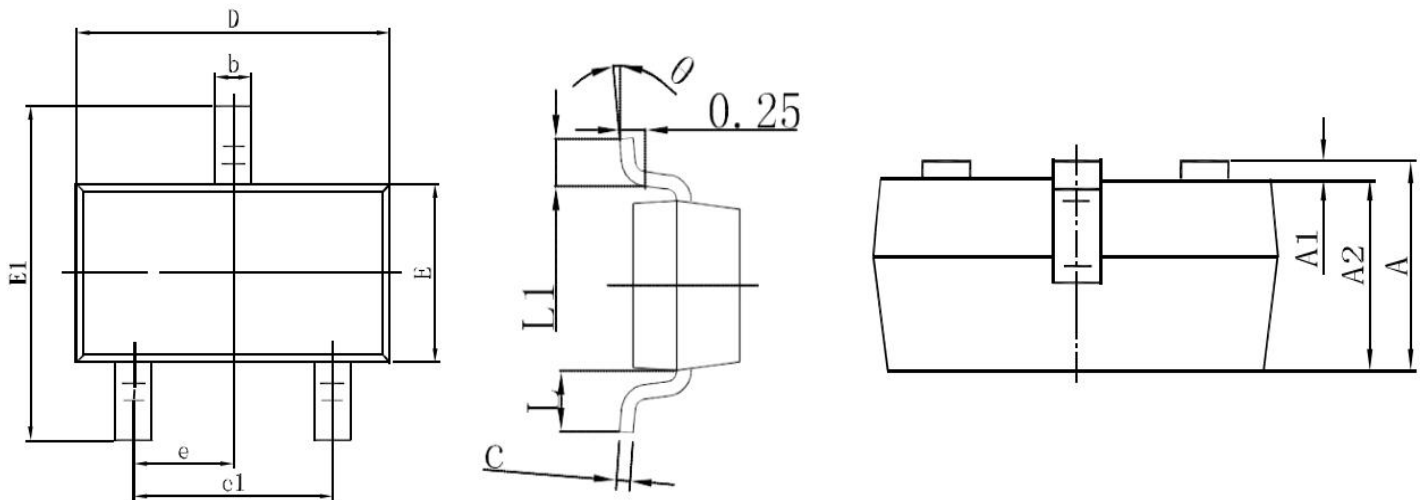
SWITCHING DIODE

Typical Characteristics



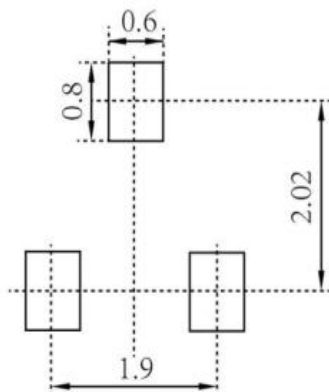
SWITCHING DIODE

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



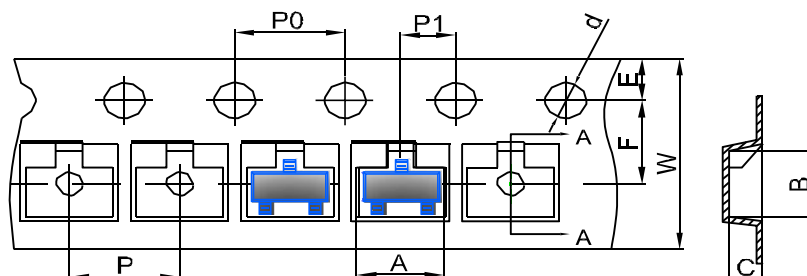
Note:

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

SWITCHING DIODE

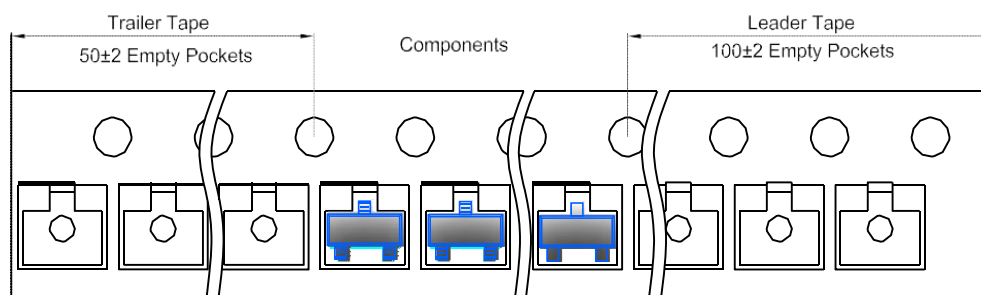
SOT-23 Tape and Reel

SOT-23 Embossed Carrier Tape

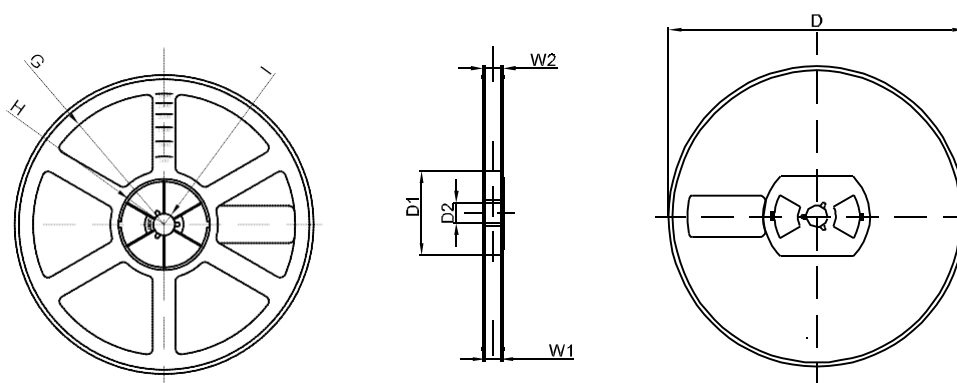


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

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