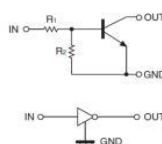


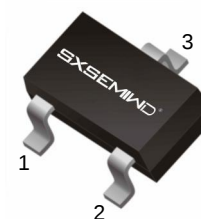
FEATURES

- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors
- Surface mount package ideally Suited for Automatic Insertion

Equivalent Circuit



SOT-523



MARKING: 29

1. IN 2. GND 3. OUT

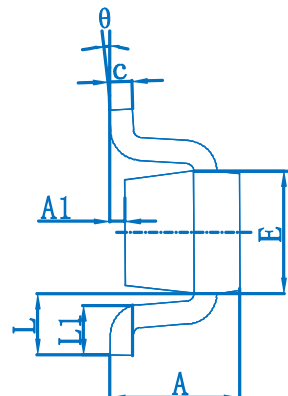
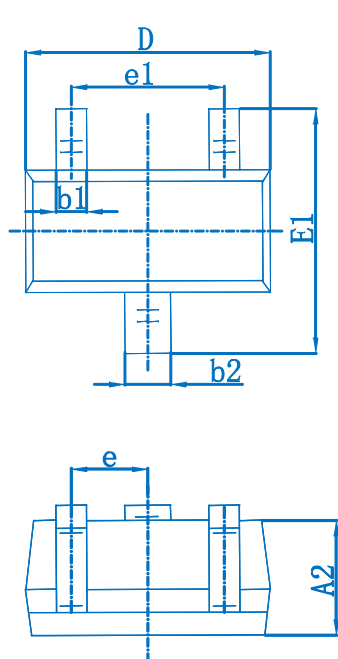
MAXIMUM RATINGS(Ta=25 °C unless otherwise noted)

Symbol	Parameter	Limit	Unit
V_{CC}	Supply Voltage	50	V
V_{IN}	Input Voltage	-10 ~ +40	V
I_O	Output Current	100	mA
P_D	Power Dissipation	150	mW
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (Ta=25 °C unless otherwise specified)

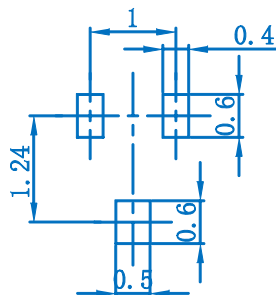
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Input voltage	$V_{I(off)}$	$V_{CC}=5V, I_O=100\mu A$			0.5	V
	$V_{I(on)}$	$V_O=0.3V, I_O=1mA$	3			V
Output voltage	$V_{O(on)}$	$I_O/I_I=5mA/0.25mA$		0.1	0.3	V
Input current	I_I	$V_I=5V$			0.15	mA
Output current	$I_{O(off)}$	$V_{CC}=50V, V_I=0V$			0.5	μA
DC current gain	G_I	$V_O=5V, I_O=5mA$	82			
Input resistance	R_1		70	100	130	k Ω
Resistance ratio	R_2/R_1		0.8	1	1.2	
Transition frequency	f_T	$V_O=10V, I_O=5mA, f=100MHz$		250		MHz

SOT-523 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500 TYP.		0.020 TYP.	
e1	0.900	1.100	0.035	0.043
L	0.400 REF.		0.016 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

SOT-523 Suggested Pad Layout



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