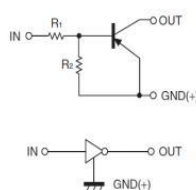


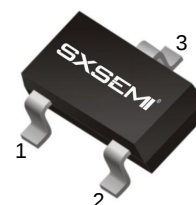
FEATURES

- 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:E13

1. IN 2. GND 3. OUT

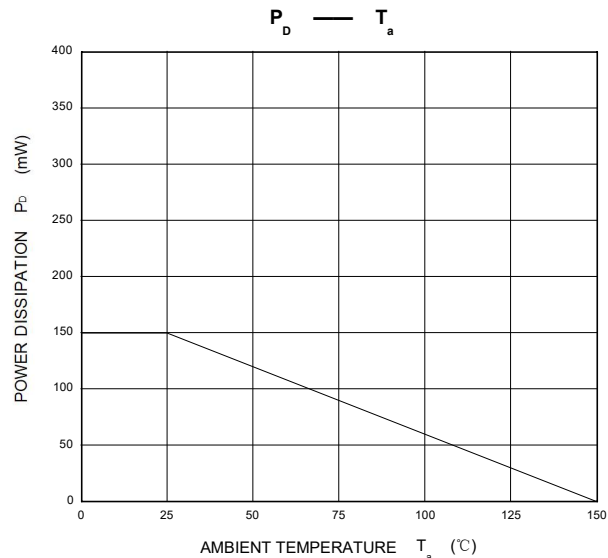
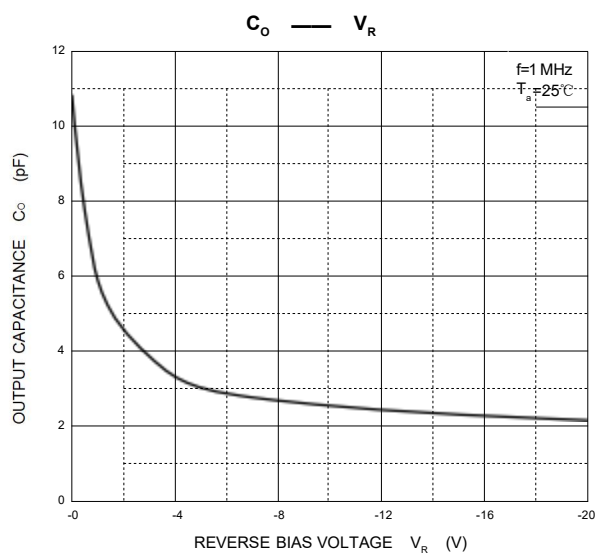
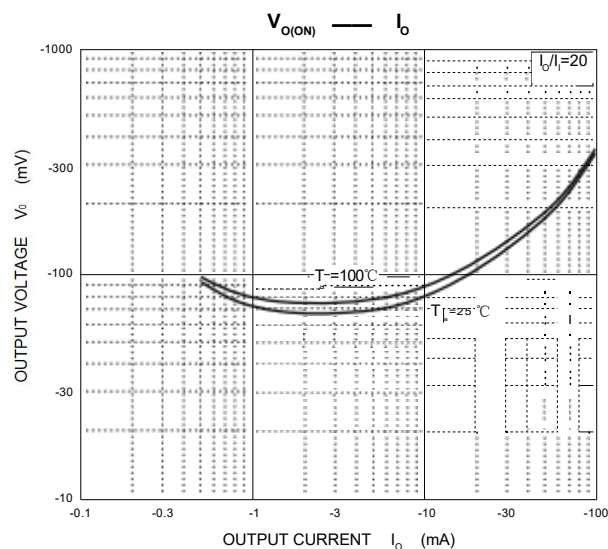
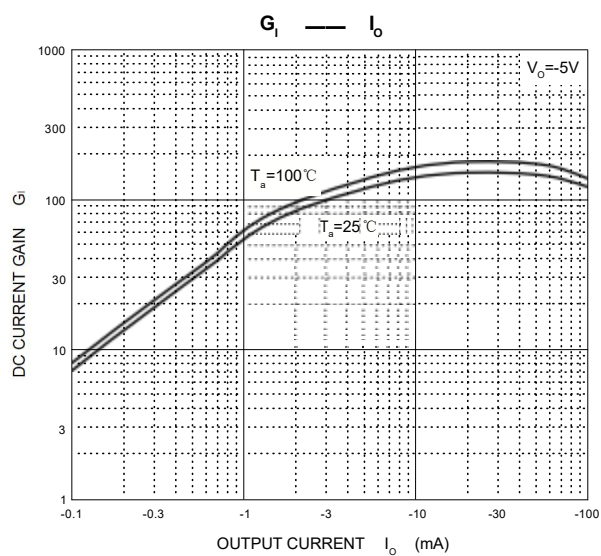
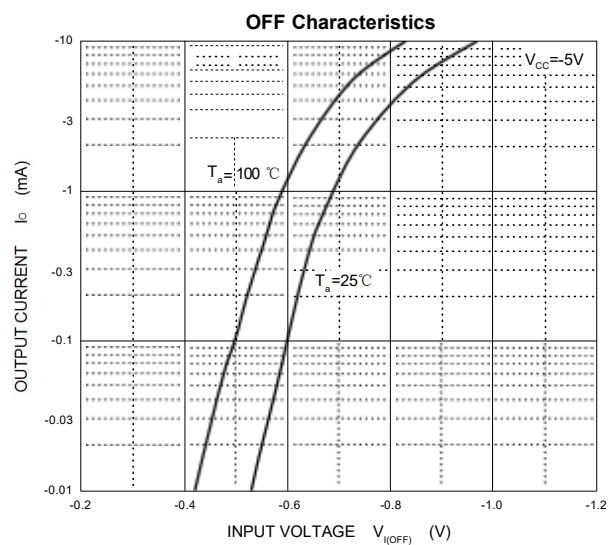
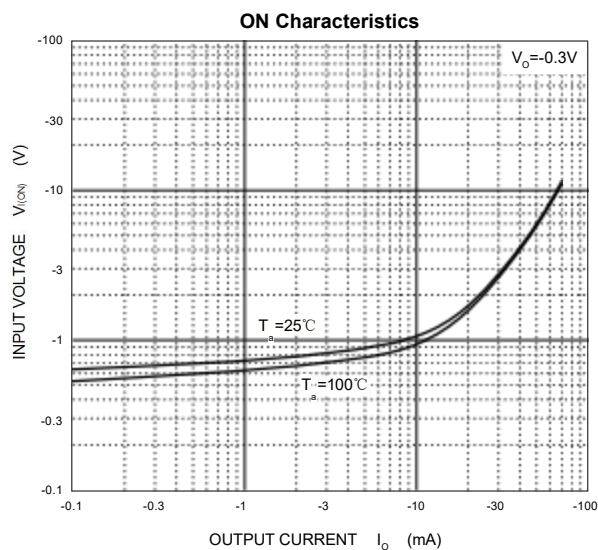
MAXIMUM RATINGS(Ta=25 °C unless otherwise noted)

Symbol	Parameter	Limits	Unit
V _{CC}	Supply Voltage	-50	V
V _{IN}	Input Voltage	-30 ~ +5	V
I _O	Output Current	-100	mA
P _D	Power Dissipation	150	mW
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55 ~ +150	°C

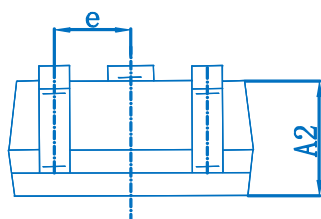
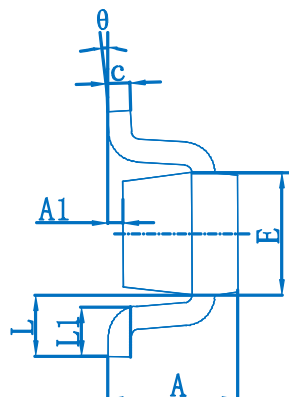
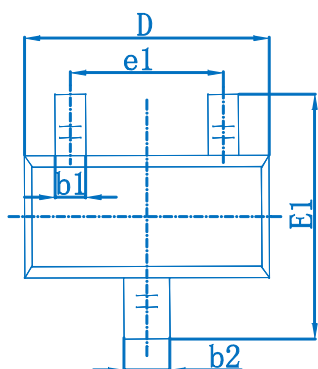
ELECTRICAL CHARACTERISTICS (Ta=25 °C unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Input voltage	V _{I(off)}	V _{CC} = -5V, I _O = -100 μA	-0.5			V
	V _{I(on)}	V _O = -0.3V, I _O = -5mA			-1.3	V
Output voltage	V _{O(on)}	I _O /I _I = -5mA/-0.25mA			-0.3	V
Input current	I _I	V _I = -5V			-1.8	mA
Output current	I _{O(off)}	V _{CC} = -50V, V _I = 0			-0.5	μA
DC current gain	G _I	V _O = -5V, I _O = -10mA	80			
Input resistance	R _I		3.29	4.7	6.11	kΩ
Resistance ratio	R ₂ /R ₁		8	10	12	
Transition frequency	f _T	V _O = -10V, I _O = -5mA, f = 100MHz		250		MHz

Typical Characteristics

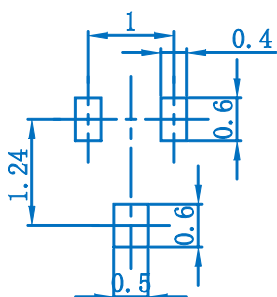


SOT-523 Package Outline Dimensions



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: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.