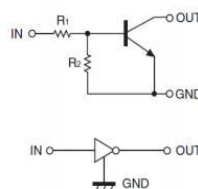


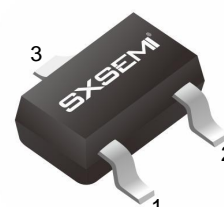
## FEATURES

- 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-323



### MARKING:62

1. IN 2. GND 3. OUT

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

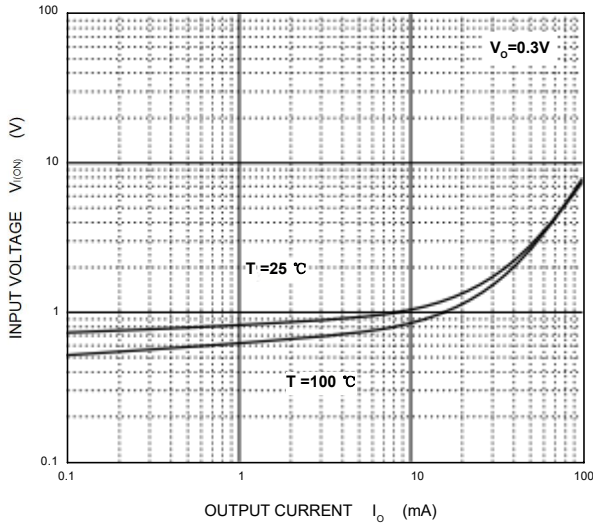
Symbol	Parameter	Limits	Unit
V <sub>CC</sub>	Supply Voltage	50	V
V <sub>IN</sub>	Input Voltage	-5 ~ +12	V
I <sub>o</sub>	Output Current	100	mA
P <sub>D</sub>	Power Dissipation	200	mW
T <sub>J</sub> , T <sub>stg</sub>	Operation Junction and Storage Temperature Range	-55 ~ +150	°C

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

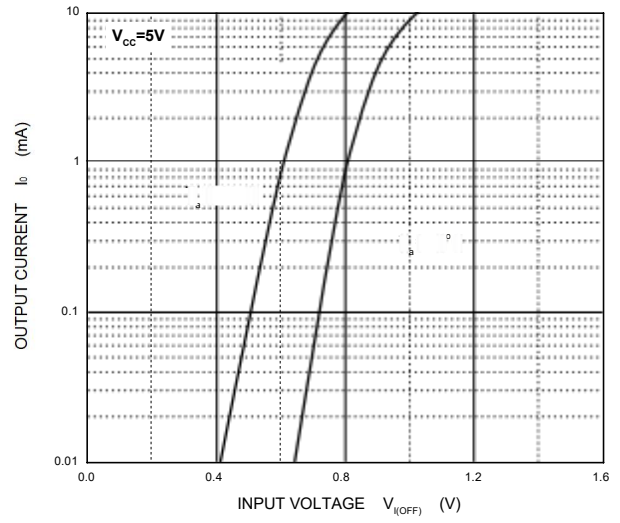
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Input voltage	V <sub>I(off)</sub>	V <sub>CC</sub> =5V, I <sub>o</sub> =100μA	0.3			V
	V <sub>I(on)</sub>	V <sub>O</sub> =0.3V, I <sub>o</sub> =20mA			3	V
Output voltage	V <sub>O(on)</sub>	I <sub>o</sub> /I <sub>i</sub> =10mA/0.5mA		0.1	0.3	V
Input current	I <sub>i</sub>	V <sub>I</sub> =5V			3.8	mA
Output current	I <sub>O(off)</sub>	V <sub>CC</sub> =50V, V <sub>I</sub> =0			0.5	μA
DC current gain	G <sub>I</sub>	V <sub>O</sub> =5V, I <sub>o</sub> =10mA	33			
Input resistance	R <sub>1</sub>		1.54	2.2	2.86	kΩ
Resistance ratio	R <sub>2</sub> /R <sub>1</sub>		3.6	4.5	5.5	
Transition frequency	f <sub>T</sub>	V <sub>O</sub> =10V, I <sub>o</sub> =5mA, f=100MHz		250		MHz

# Typical Characteristics

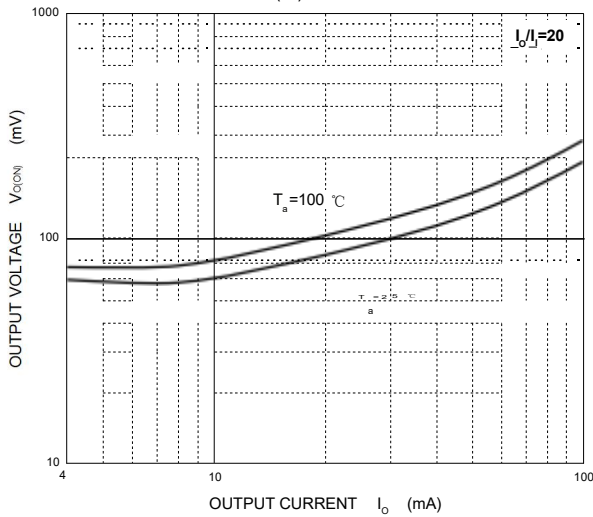
**ON Characteristics**



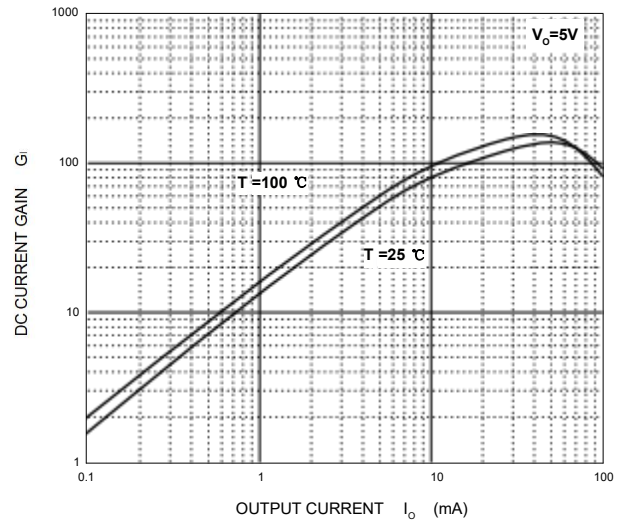
**OFF Characteristics**



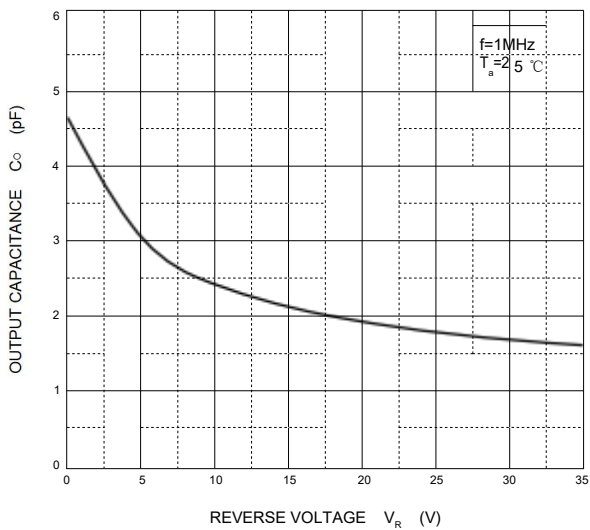
$V_{O(ON)}$  —  $I_O$



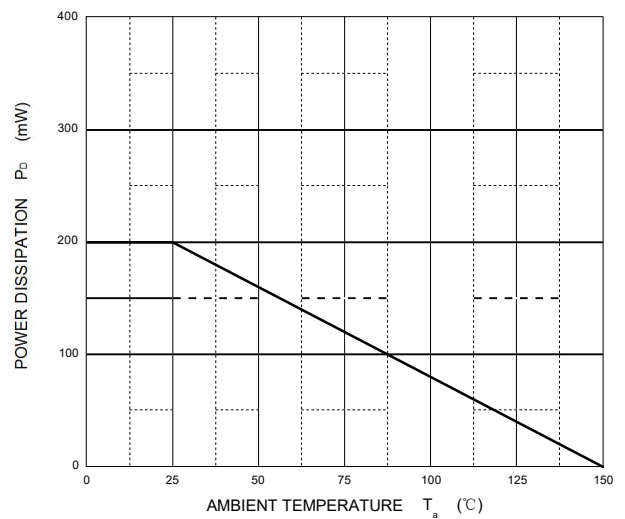
$G_I$  —  $I_O$



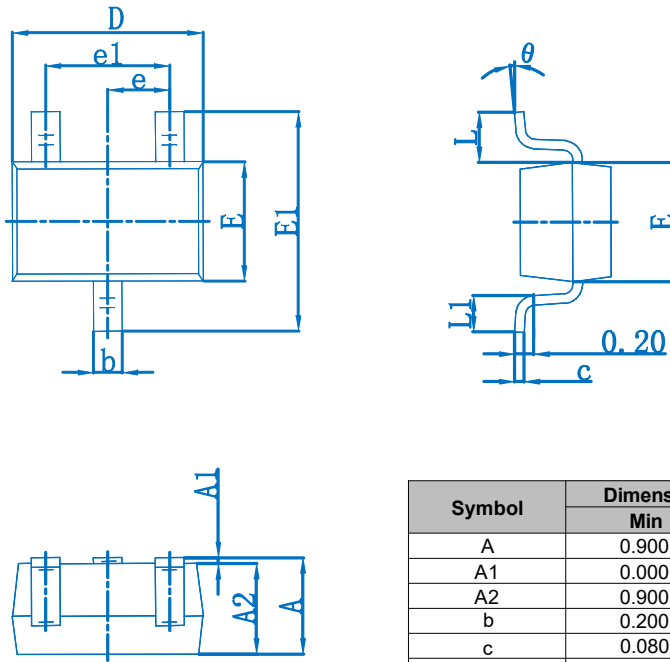
$C_o$  —  $V_R$



$P_D$  —  $T_a$

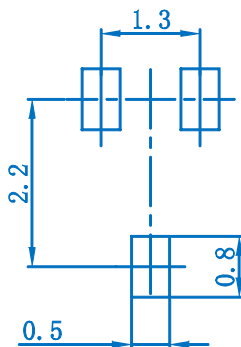


**SOT-323 Package Outline Dimensions**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

**SOT-323 Suggested Pad Layout**



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