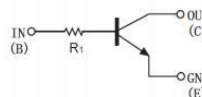


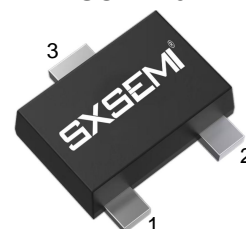
### FEATURES

- 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-723



### MARKING:06

1. IN 2. GND 3. OUT

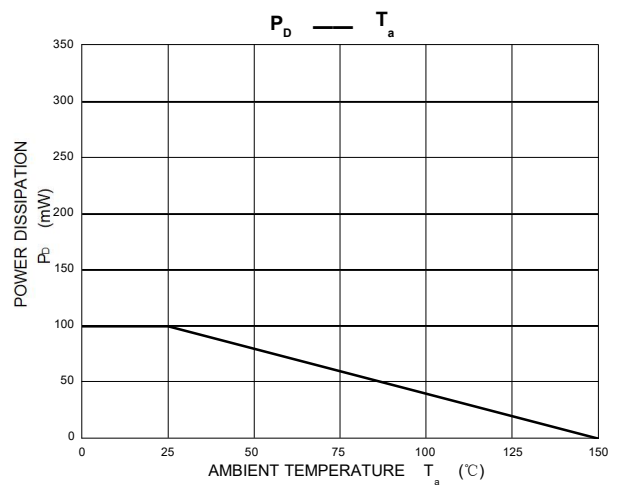
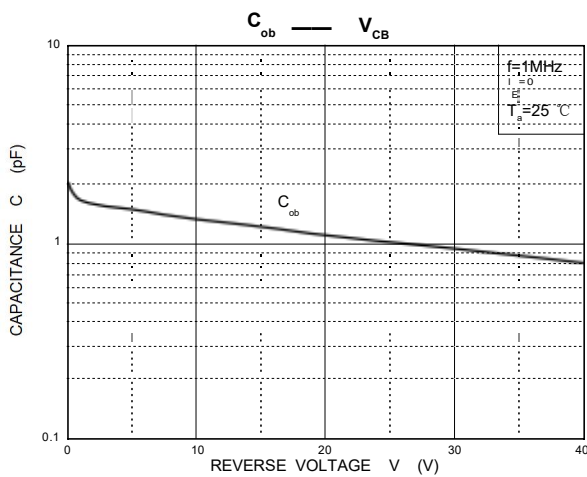
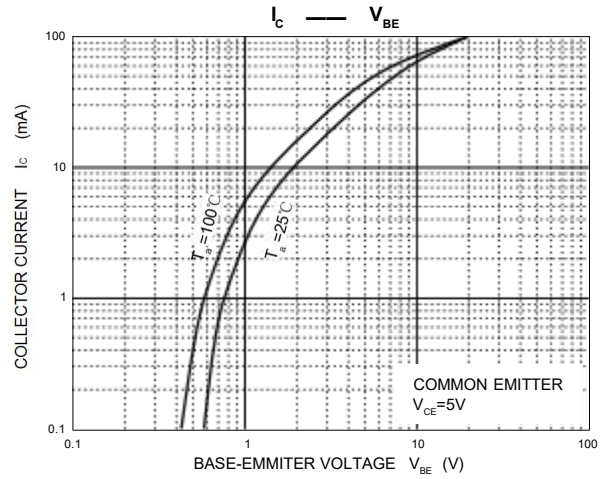
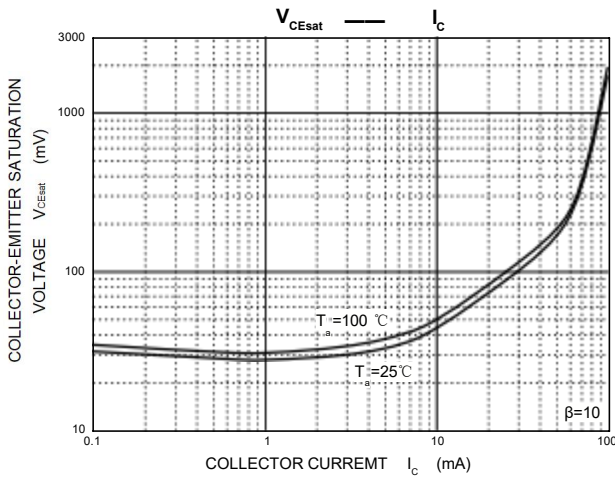
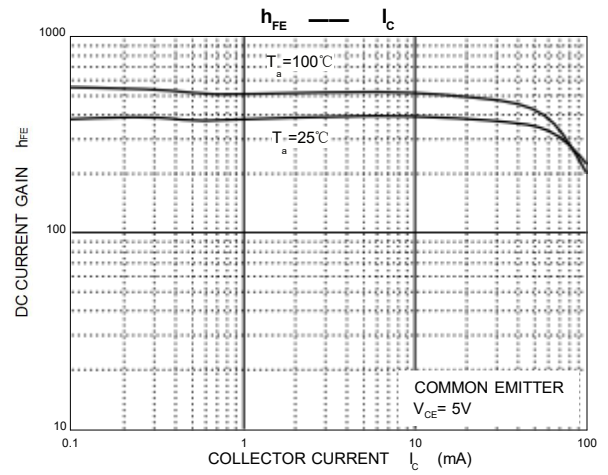
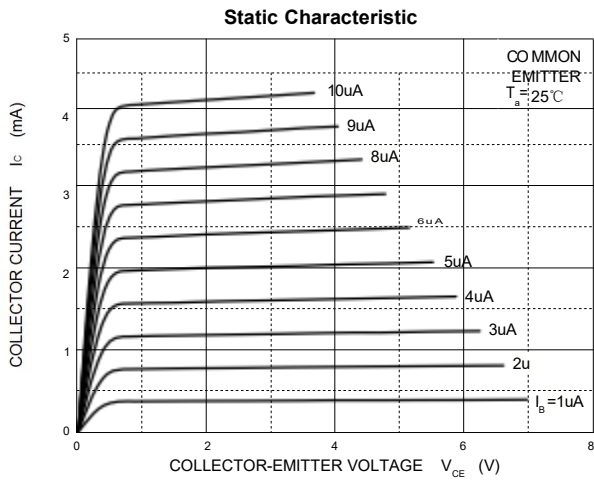
### MAXIMUM RATINGS(Ta=25 °C unless otherwise noted)

Symbol	Parameter	Limits	Unit
V <sub>CBO</sub>	Collector-Base Voltage	50	V
V <sub>CEO</sub>	Collector-Emitter Voltage	50	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>c</sub>	Collector Current	100	mA
P <sub>D</sub>	Power Dissipation	100	mW
T <sub>J</sub> , T <sub>stg</sub>	Operation Junction and Storage Temperature Range	-55~+150	°C

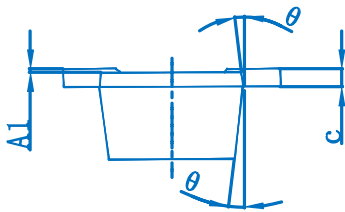
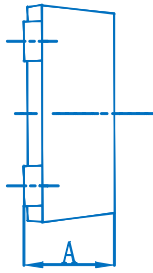
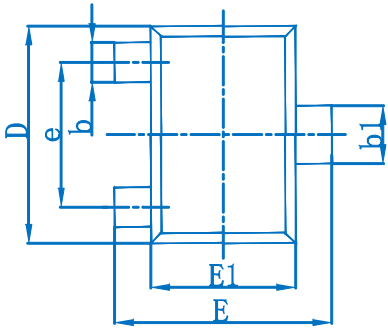
### ELECTRICAL CHARACTERISTICS (Ta=25 °C unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>c</sub> =50μA, I <sub>E</sub> =0	50			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>c</sub> =1mA, I <sub>B</sub> =0	50			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =50μA, I <sub>C</sub> =0	5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =50V, I <sub>E</sub> =0			0.5	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =4V, I <sub>C</sub> =0			0.5	μA
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =5mA, I <sub>B</sub> =0.5mA			0.3	V
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>c</sub> =1mA	100	300	600	
Input resistor	R <sub>1</sub>		32.9	47	61.1	kΩ
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>E</sub> =-5mA, f=100MHz		250		MHz

# Typical Characteristics

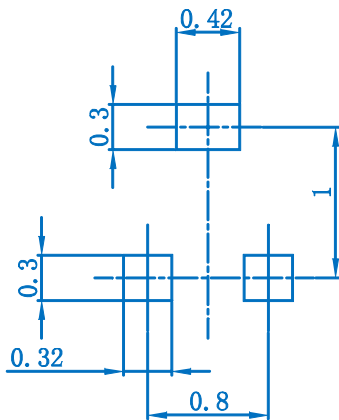


**SOT-723 Package Outline Dimensions**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.430	0.500	0.017	0.020
A1	0.000	0.050	0.000	0.002
b	0.170	0.270	0.007	0.011
b1	0.270	0.370	0.011	0.015
c	0.080	0.150	0.003	0.006
D	1.150	1.250	0.045	0.049
E	1.150	1.250	0.045	0.049
E1	0.750	0.850	0.030	0.033
e	0.800TYP.		0.031TYP.	
theta	7° REF.		7° REF.	

**SOT-723 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.