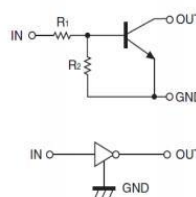


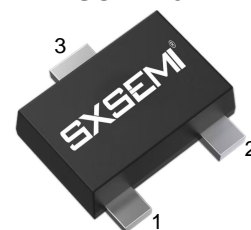
FEATURES

- 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: E42

1. IN 2. GND 3. OUT

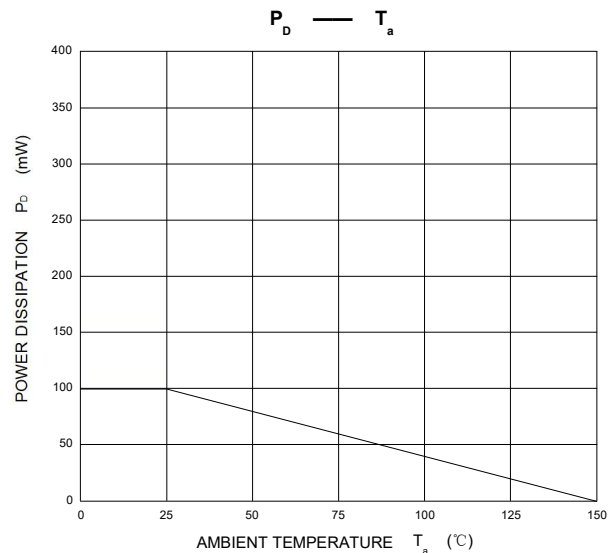
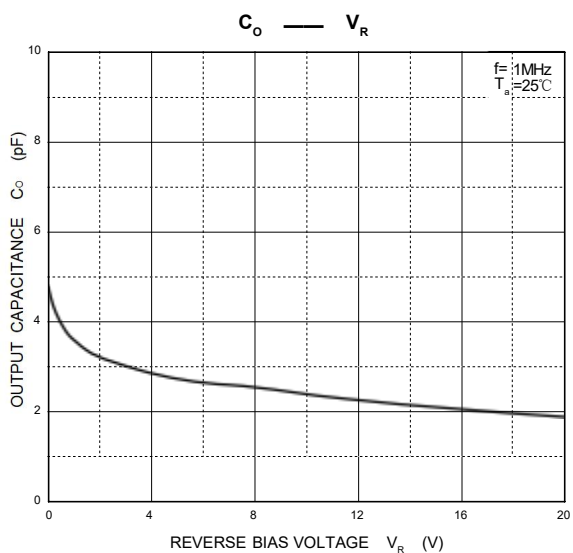
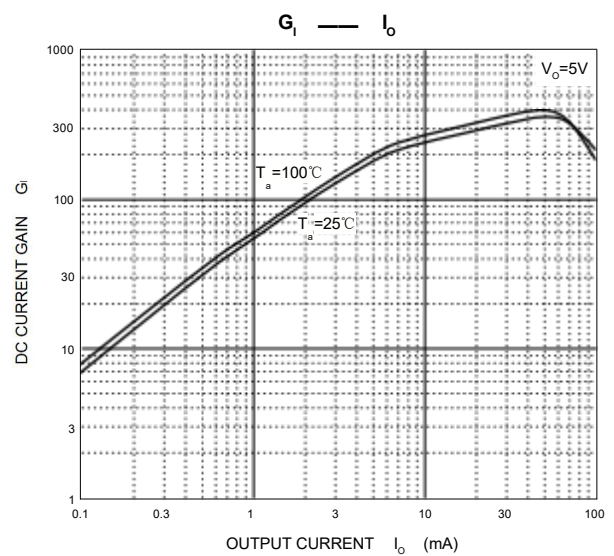
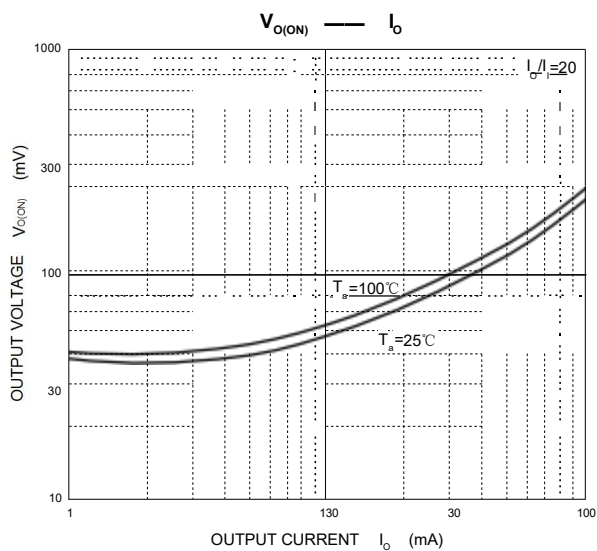
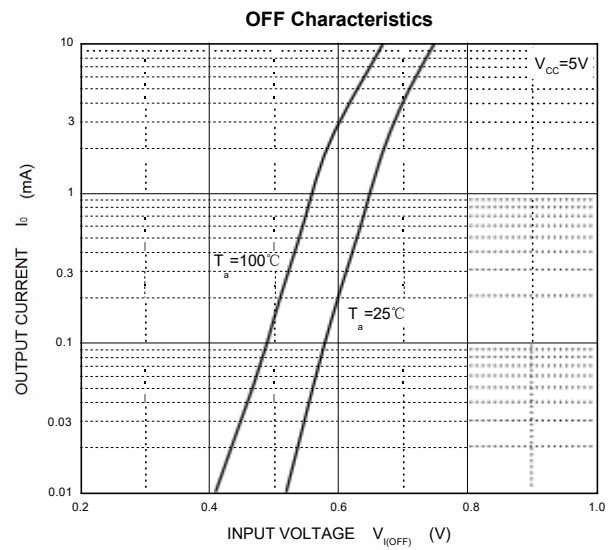
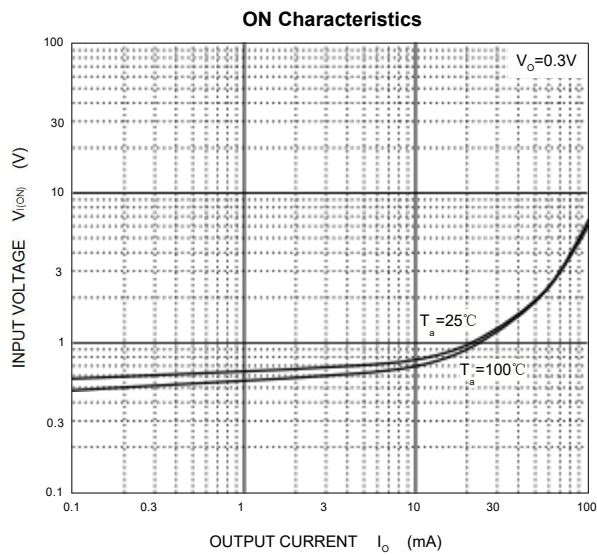
MAXIMUM RATINGS (Ta=25 °C unless otherwise noted)

Symbol	Parameter	Limits	Unit
V _{CC}	Supply Voltage	50	V
V _{IN}	Input Voltage	-5 ~ +12	V
I _O	Output Current	100	mA
P _D	Power Dissipation	100	mW
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55 ~ +150	°C

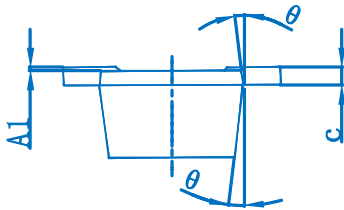
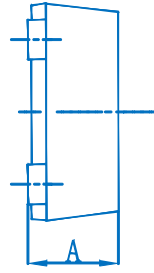
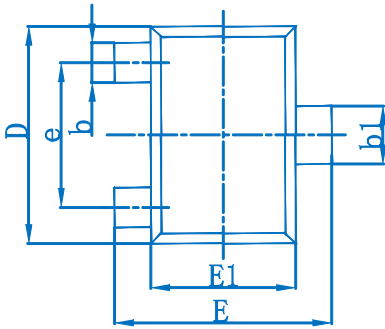
ELECTRICAL CHARACTERISTICS (Ta=25 °C unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Input voltage	V _{I(off)}	V _{CC} =5V, I _O =100μA	0.5			V
	V _{I(on)}	V _O =0.3V, I _O =5mA			1.1	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			3.6	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 ₁		1.54	2.2	2.86	kΩ
Resistance ratio	R ₂ /R ₁		17	21	26	
Transition frequency	f _T	V _O =10V, I _O =5mA, f=100MHz		250		MHz

Typical Characteristics

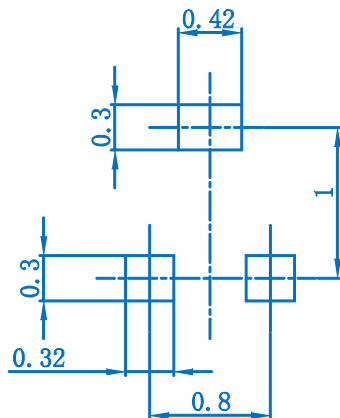


SOT-723 Package Outline Dimensions



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.	
θ	7° REF.		7° REF.	

SOT-723 Suggested Pad Layout



Note:

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