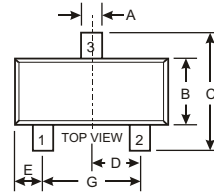
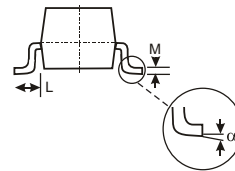
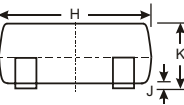


Features

- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors(see equivalent circuit)
- The bias resistors consist of thin-film resistors with complete isolation to allow negative biasing of the input. They also have the advantage of almost completely eliminating parasitic effects
- Only the on/off conditions need to be set for operation,making device design easy
- Marking Code:25



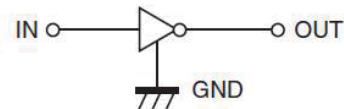
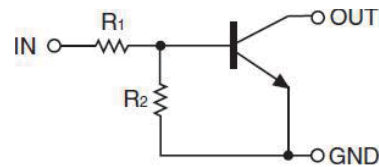
SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		



Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter	Limits	Unit
V_{CC}	Supply Voltage	50	V
V_{IN}	Input Voltage	-10~+40	V
I_O	Output Current	30	mA
I_{CM}	Peak Collector Current	100	mA
P_D	Power Dissipation	200	mW
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^\circ\text{C}$

Equivalent Circuit



1. IN
2. GND
3. OUT

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Input voltage	$V_{I(off)}$	$V_{CC}=5V, I_O=100\mu\text{A}$	0.5			V
	$V_{I(on)}$	$V_O=0.3V, I_O=2\text{mA}$			3	V
Output voltage	$V_{O(on)}$	$I_O/I_I=10\text{mA}/0.5\text{mA}$		0.1	0.3	V
Input current	I_I	$V_I=5V$			0.36	mA
Output current	$I_{O(off)}$	$V_{CC}=50V, V_I=0$			0.5	μA
DC current gain	G_I	$V_O=5V, I_O=5\text{mA}$	56			
Input resistance	R_1		15.4	22	28.6	k Ω
Resistance ratio	R_2/R_1		0.8	1	1.2	
Transition frequency	f_T	$V_O=10V, I_O=5\text{mA}, f=100\text{MHz}$		250		MHz

TYPICAL TRANSIENT CHARACTERISTICS

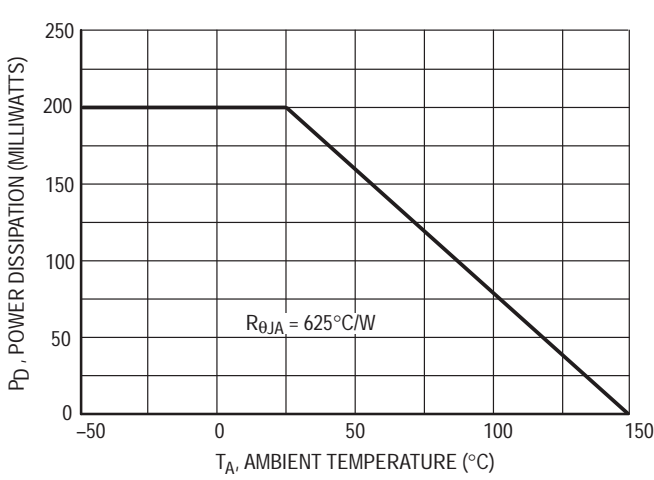


Figure 1. Derating Curve

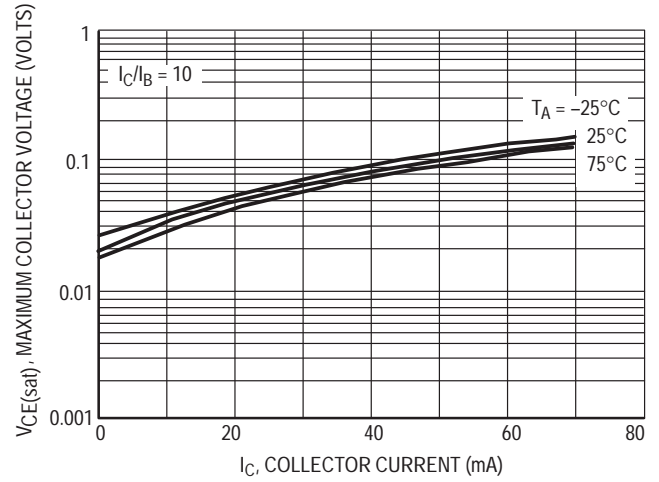


Figure 2. $V_{CE(sat)}$ versus I_C

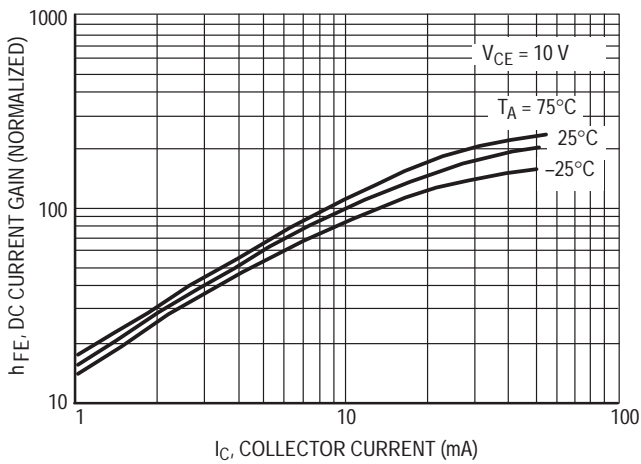


Figure 3. DC Current Gain

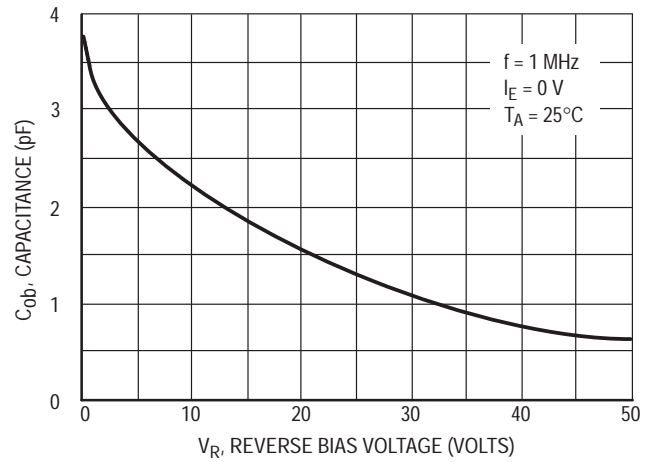


Figure 4. Output Capacitance

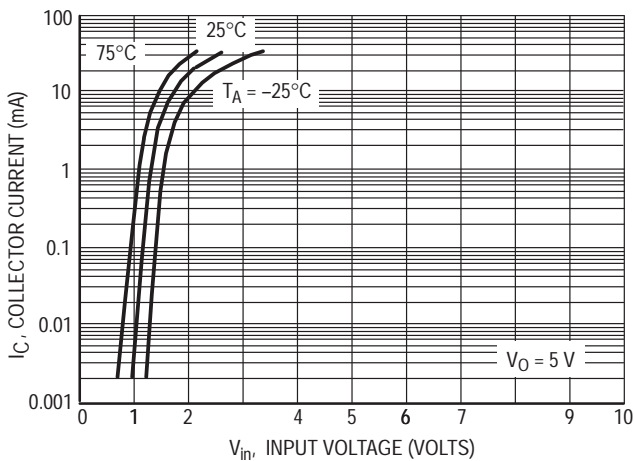


Figure 5. $V_{CE(sat)}$ versus I_C

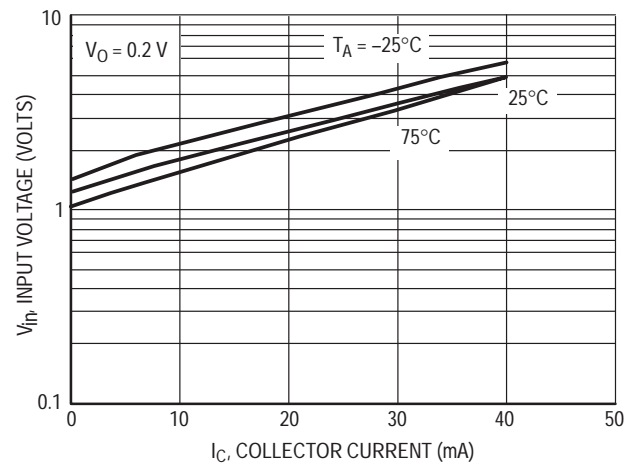


Figure 6. $V_{CE(sat)}$ versus I_C

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