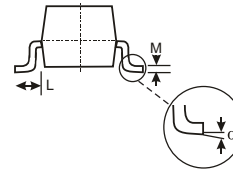
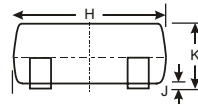
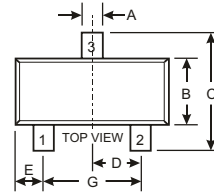


### Features

- 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:84

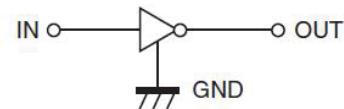
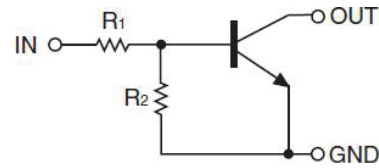


SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
$\alpha$	0°	8°
All Dimensions in mm		

### 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~+30	V
$I_O$	Output 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



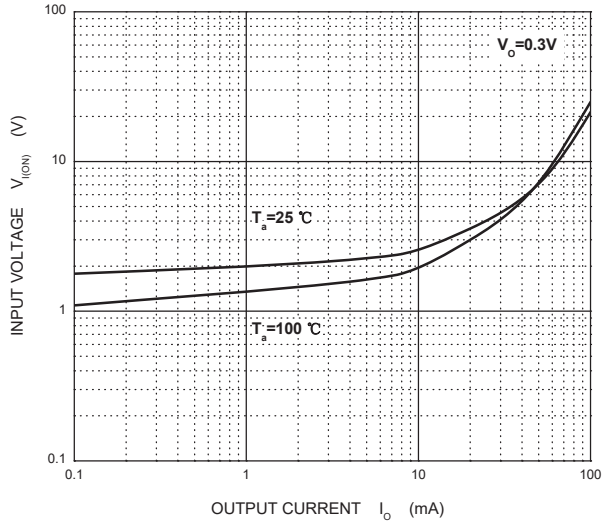
1. IN
2. GND
3. OUT

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

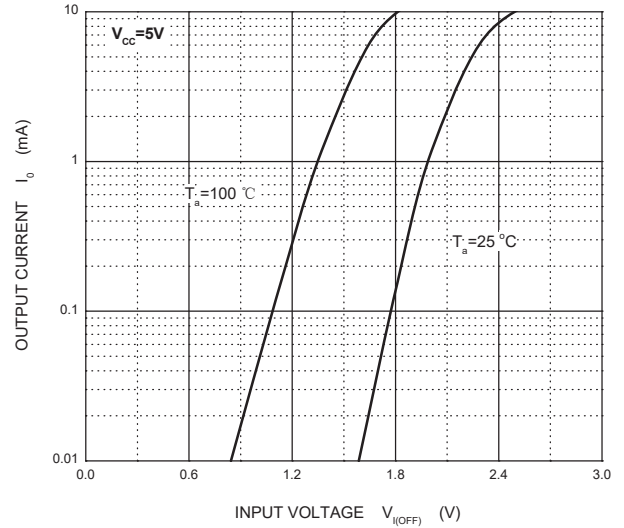
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Input voltage	$V_{I(off)}$	$V_{CC}=5V, I_O=100\mu A$	0.8			V
	$V_{I(on)}$	$V_O=0.3V, I_O=2\text{ mA}$			3	V
Output voltage	$V_{O(on)}$	$I_O/I_I=10\text{mA}/0.5\text{mA}$			0.3	V
Input current	$I_I$	$V_I=5V$			0.88	mA
Output current	$I_{O(off)}$	$V_{CC}=50V, V_I=0$			0.5	$\mu A$
DC current gain	$G_I$	$V_O=5V, I_O=10\text{mA}$	24			
Input resistance	$R_I$		7	10	13	k $\Omega$
Resistance ratio	$R_2/R_1$		0.37	0.47	0.57	
Transition frequency	$f_T$	$V_O=10V, I_O=5\text{mA}, f=100\text{MHz}$		250		MHz

### TYPICAL TRANSIENT CHARACTERISTICS

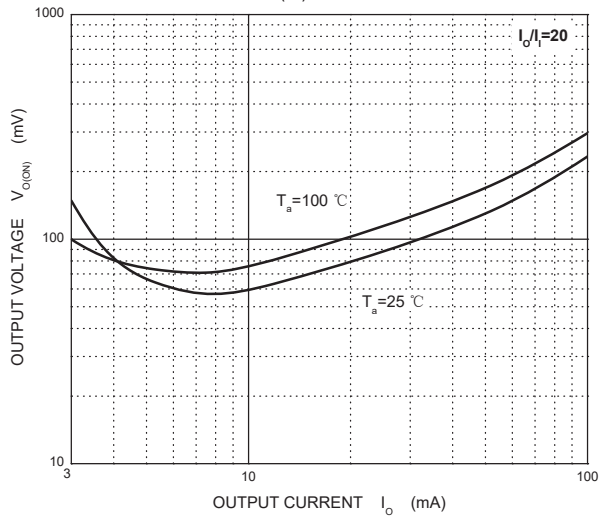
ON Characteristics



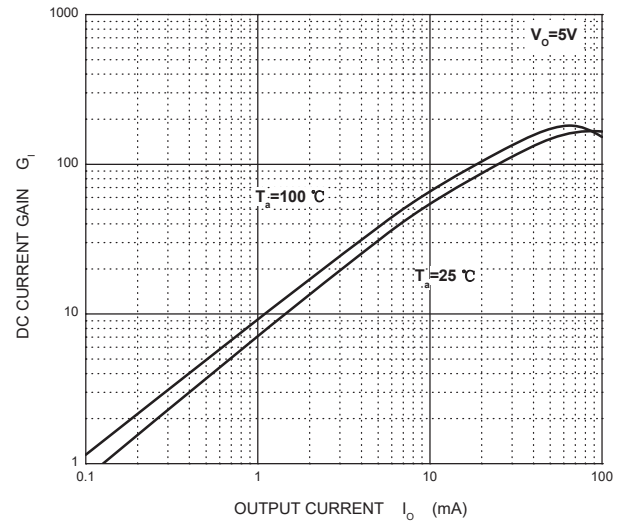
OFF Characteristics



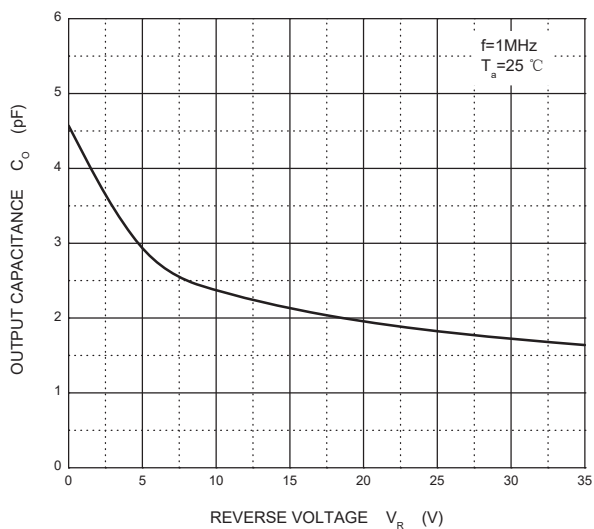
$V_{O(ON)}$  —  $I_O$



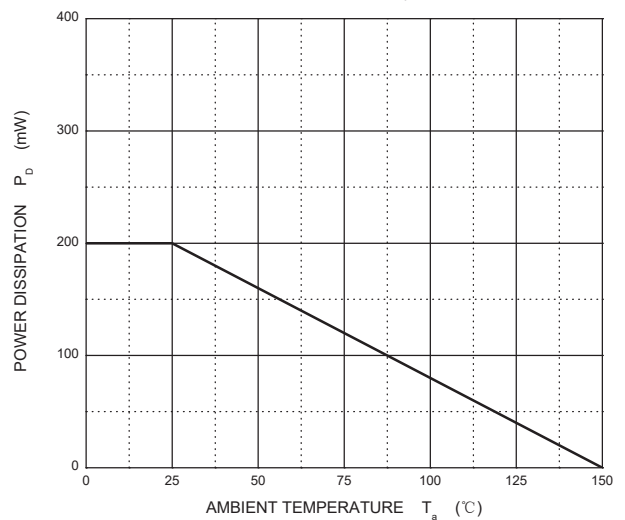
$G_I$  —  $I_O$



$C_O$  —  $V_R$



$P_D$  —  $T_a$



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