

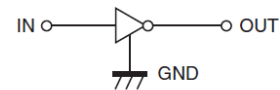
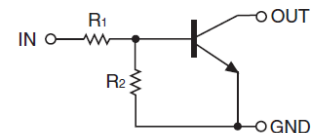


Features

- 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



SOT-23-3L



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
HDTC144EKAT146	SOT-23-3L	26	3000

Maxmim Ratings (Ta=25 unless otherwise noted)

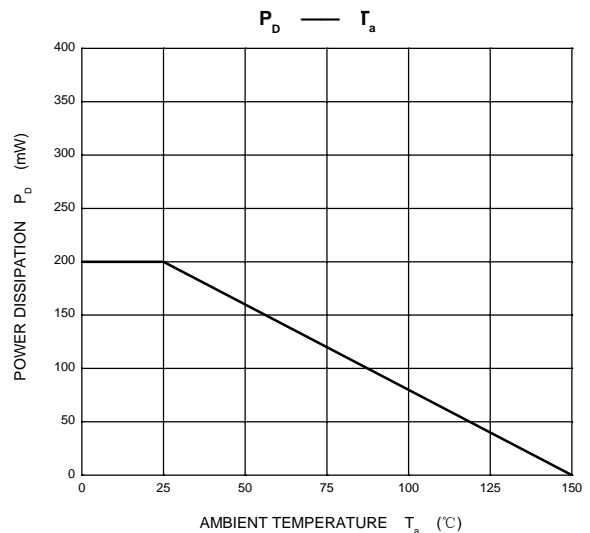
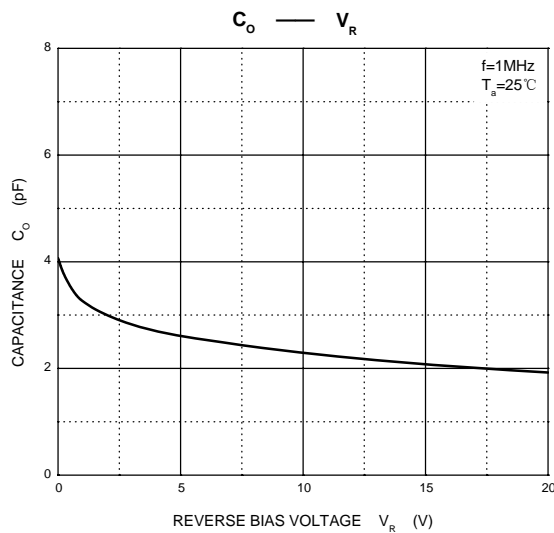
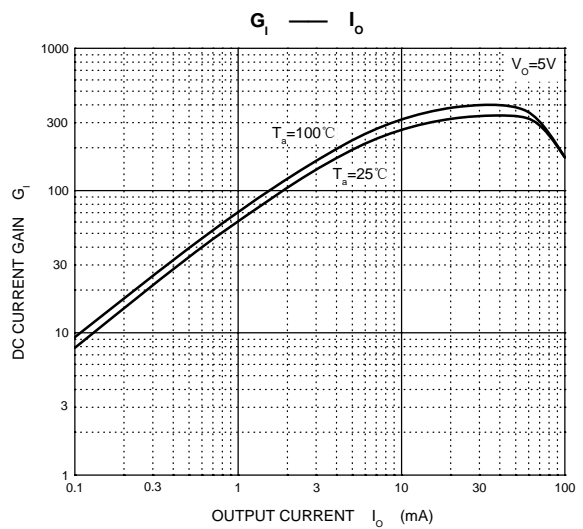
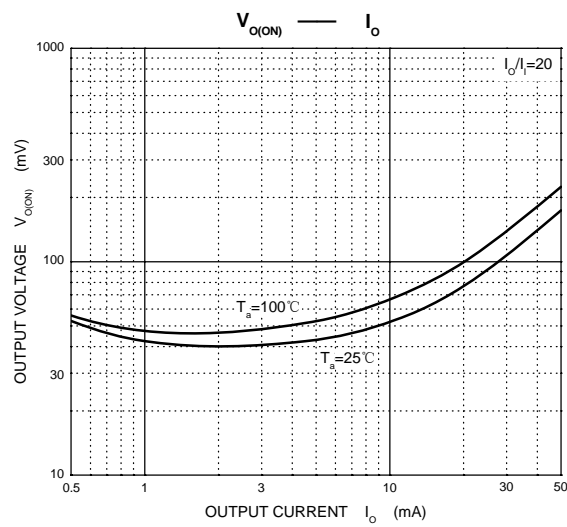
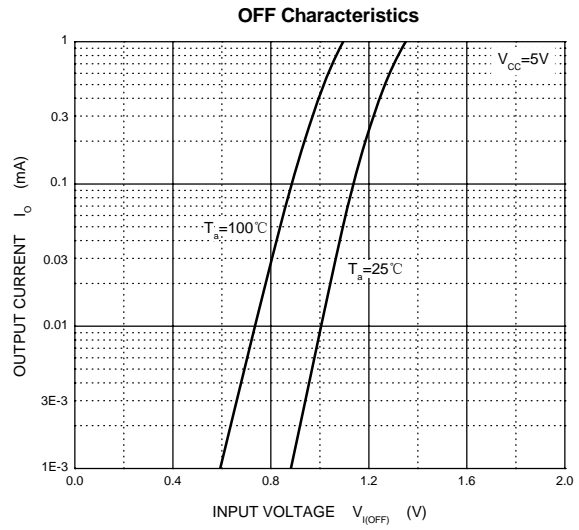
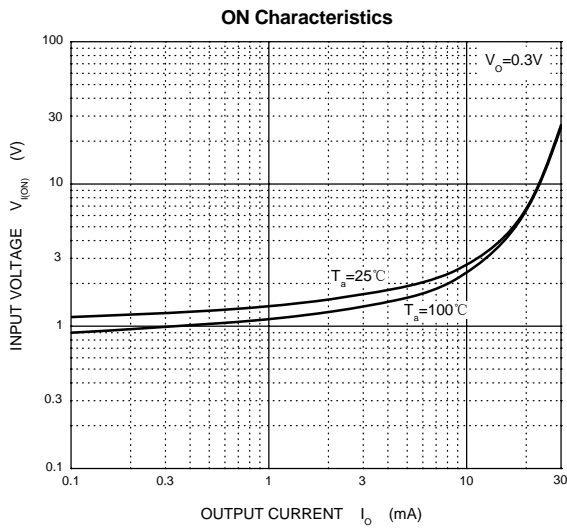
Symbol	Parameter	Limits	Unit
V_{CC}	Supply Voltage	50	V
V_{IN}	Input Voltage	-10 ~ +40	V
I_O	Output Current	30	mA
I_{CM}	Peak Collector Current	100	mA
P_D	Power Dissipation	200	mW
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55 ~ +150	°C

Electrcal Charcteristics (Ta=25 unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Input voltage	$V_{I(off)}$	$V_{CC}=5V, I_O=100\mu A$	0.5			V
	$V_{I(on)}$	$V_O=0.3V, I_O=2mA$			3	V
Output voltage	$V_{O(on)}$	$I_O/I_I=10mA/0.5mA$			0.3	V
Input current	I_I	$V_I=5V$			0.18	mA
Output current	$I_{O(off)}$	$V_{CC}=50V, V_I=0$			0.5	μA
DC current gain	G_I	$V_O=5V, I_O=5mA$	68			
Input resistance	R_I		32.9	47	61.1	k Ω
Resistance ratio	R_2/R_1		0.8	1	1.2	
Transition frequency	f_T	$V_O=10V, I_O=5mA, f=100MHz$		250		MHz

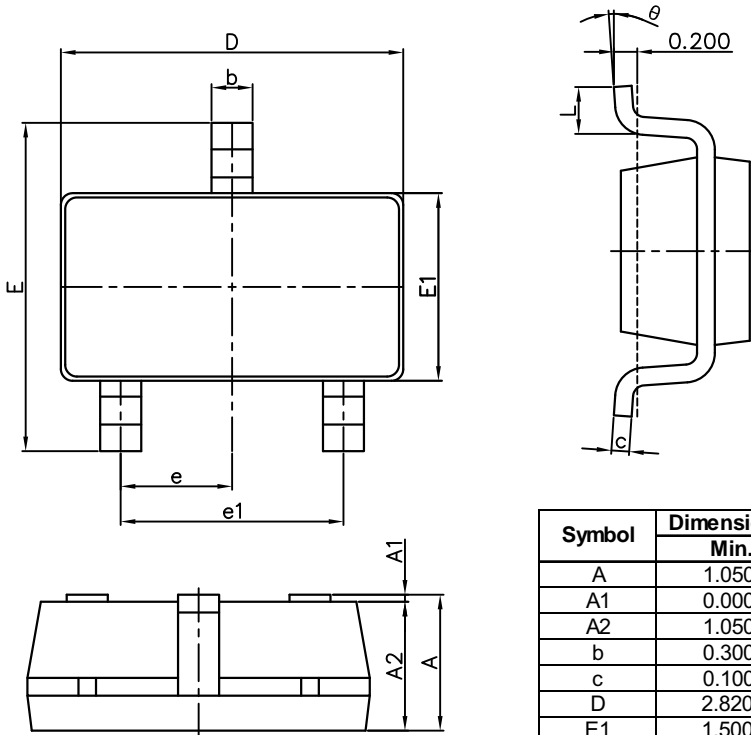


Typical Characteristics





SOT-23-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°



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