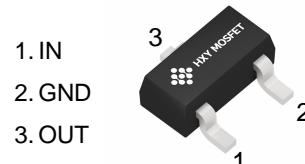


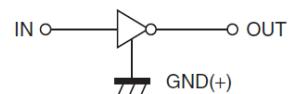
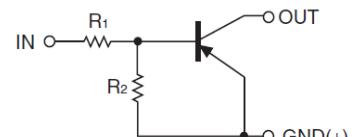


Features

- 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
(TO-236-3(SOT-23-3))**



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
DTB143ECT116	SOT-23 (TO-236-3(SOT-23-3))	13	3000

Maxmim Ratings (Ta=25 unless otherwise noted)

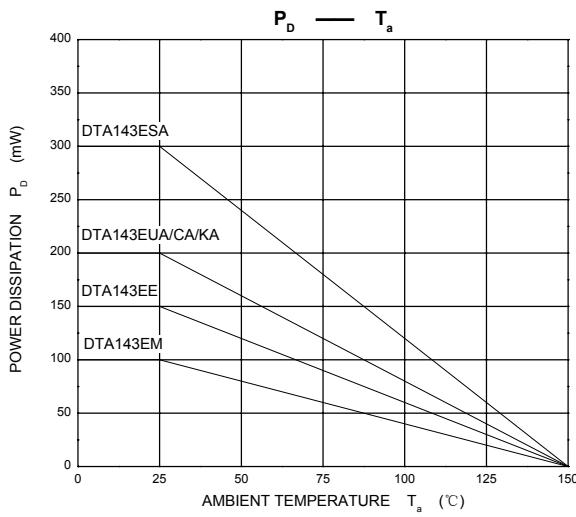
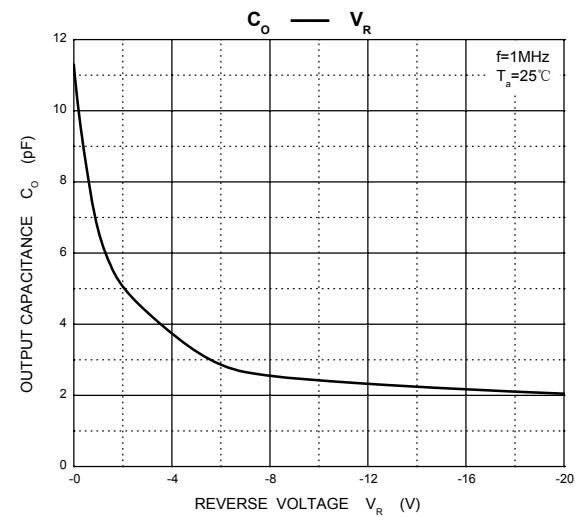
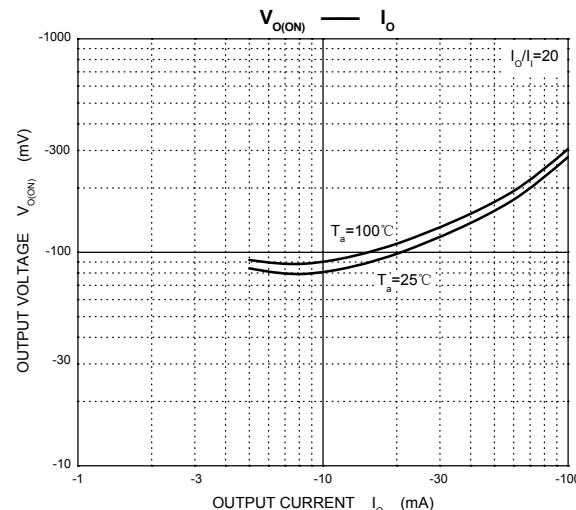
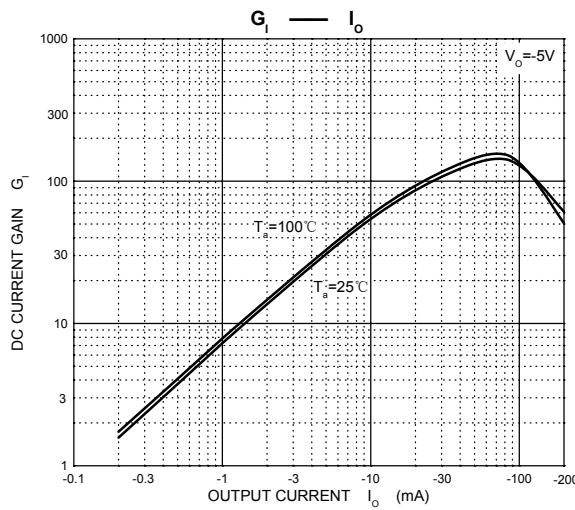
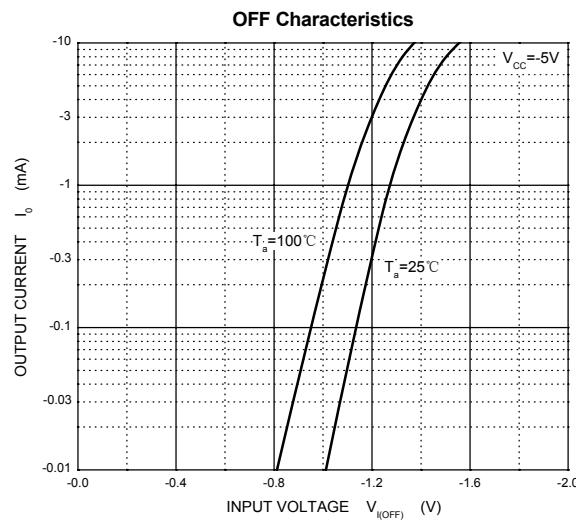
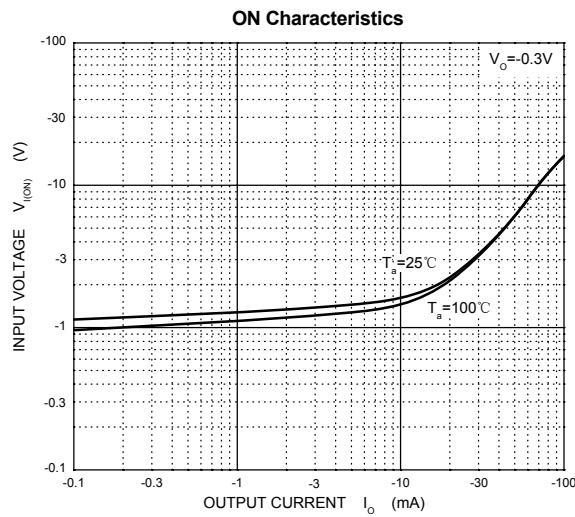
Symbol	Parameter	Limits	Unit
V _{CC}	Supply Voltage	-50	V
V _{IN}	Input Voltage	-30 ~ +10	V
I _O	Output Current	-100	mA
P _D	Power Dissipation	200	mW
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55 ~ +150	°C

Electrcal Charcteristics (Ta=25 unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Input voltage	V _{I(off)}	V _{CC} =-5V, I _O =-100μA	-0.5			V
	V _{I(on)}	V _O =-0.3V, I _O =-20 mA			-3	V
Output voltage	V _{O(on)}	I _O /I _I =-10mA/-0.5mA			-0.3	V
Input current	I _I	V _I =-5V			-1.8	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	30			
Input resistance	R _I		3.29	4.7	6.11	kΩ
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

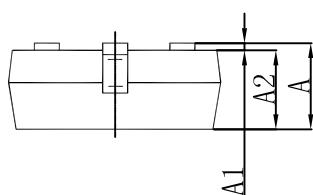
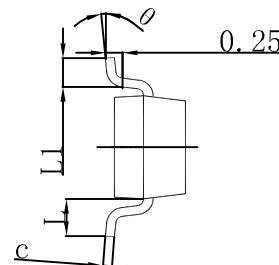
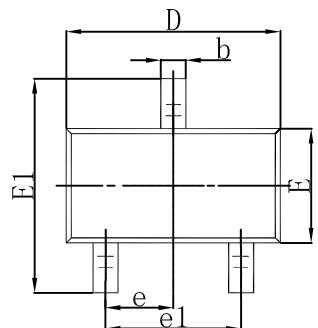


Typical Characteristics



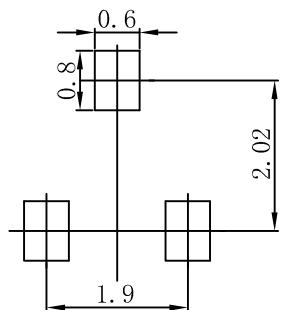


SOT-23(TO-236-3(SOT-23-3)) Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23(TO-236-3(SOT-23-3)) Suggested Pad Layout



Note:

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



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