

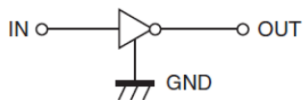
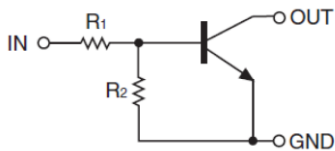


### DTC143XCA Digital Transistor

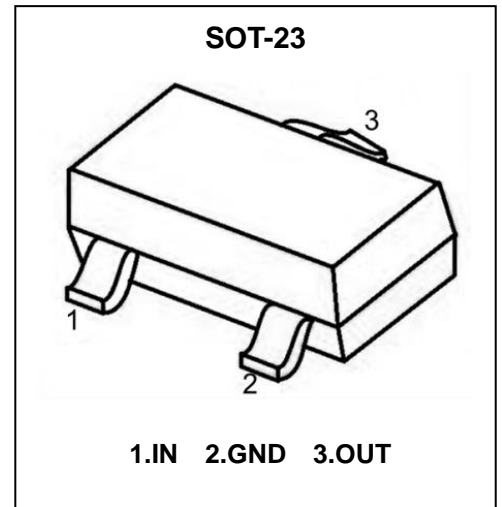
#### Feature

- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors
- The bias resistors consist of thin-film resistors with complete isolation to allow positive 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

#### Schematic diagram



#### Marking:



**ABSOLUTE MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$  unless otherwise noted)**

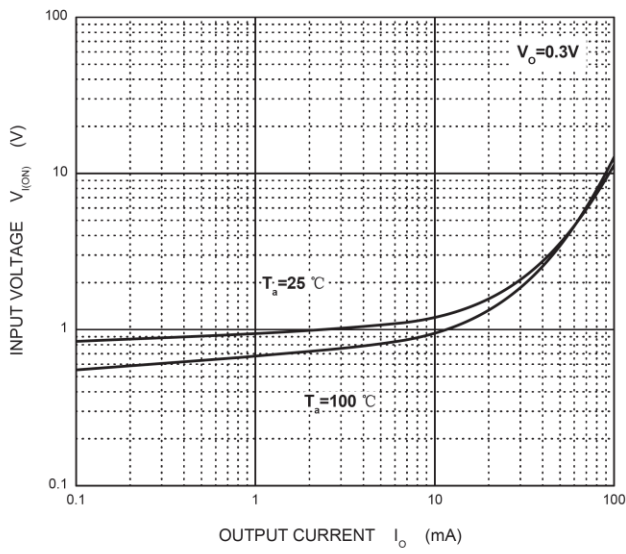
Parameter	Symbol	Value	Unit
Supply Voltage	$V_{CC}$	50	V
Input Voltage	$V_{IN}$	-7~+20	V
Output Current	$I_o$	100	mA
Power Dissipation	$P_D$	200	mW
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55 ~ +150	$^{\circ}\text{C}$

**ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}\text{C}$  unless otherwise noted)**

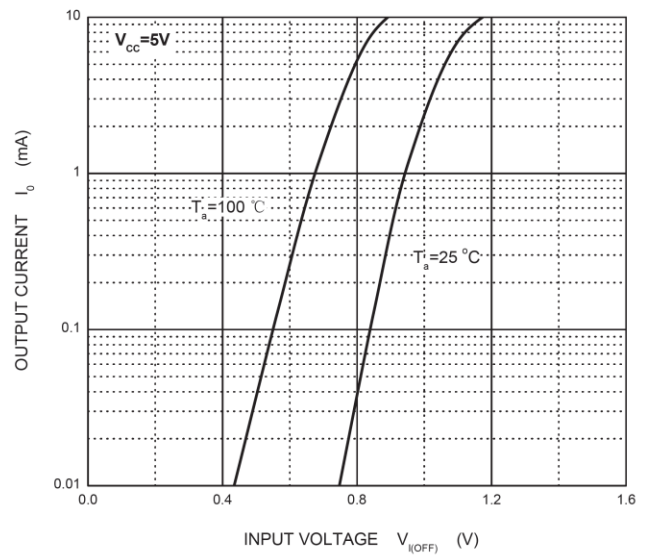
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Input voltage	$V_{I(off)}$	$V_{CC}=5V, I_o=100\mu A$	0.3			V
	$V_{I(on)}$	$V_o=0.3V, I_o=20mA$			2.5	V
Output voltage	$V_{O(on)}$	$I_o/I_i=10mA/0.5mA$		0.1	0.3	V
Input current	$I_i$	$V_i=5V$			1.8	mA
Output current	$I_{O(off)}$	$V_{CC}=50V, V_i=0V$			0.5	$\mu A$
DC current gain	$G_i$	$V_o=5V, I_o=10mA$	30			
Input resistance	$R_1$		3.29	4.7	6.11	k $\Omega$
Resistance ratio	$R_2/R_1$		1.7	2.1	2.6	
Transition frequency	$f_T$	$V_o=10V, I_o=5mA, f=1MHz$		250		MHz

**Typical Characteristics**

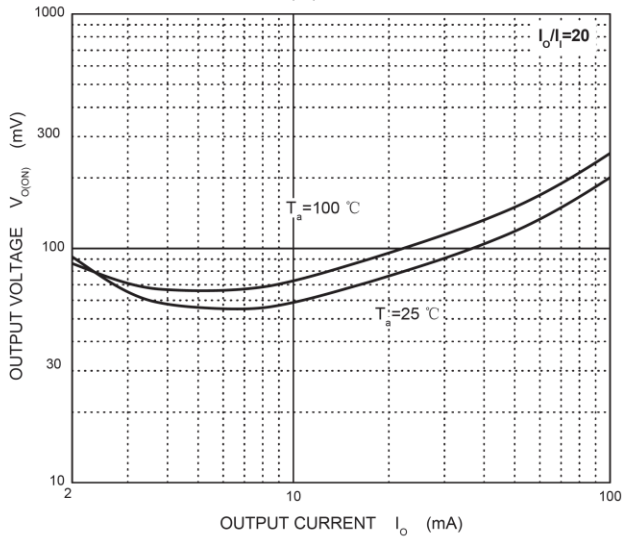
**ON Characteristics**



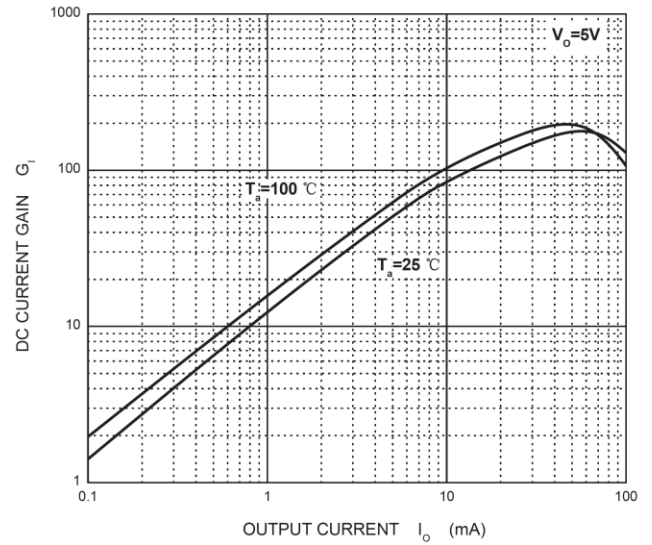
**OFF Characteristics**



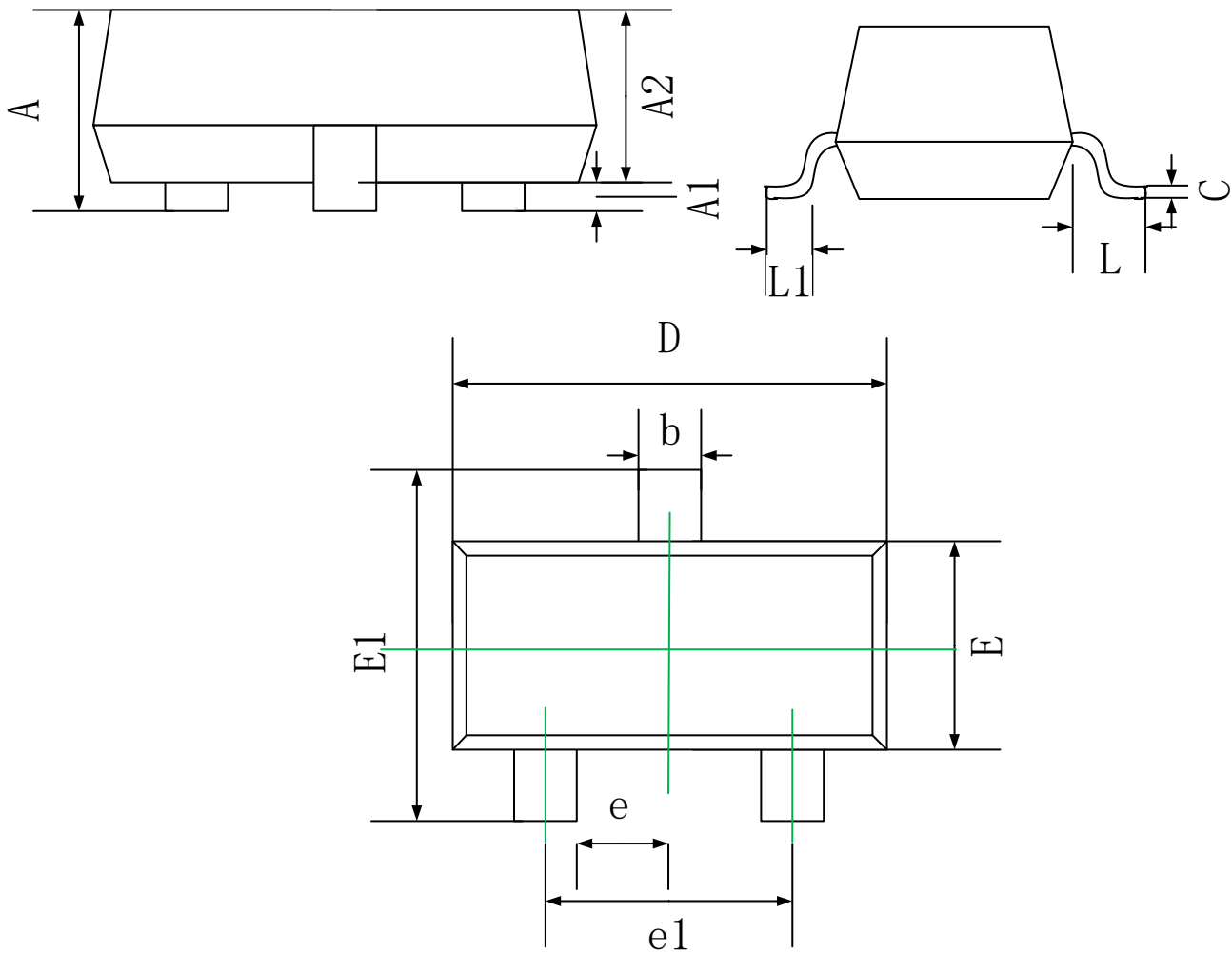
$V_{O(ON)} - I_O$



$G_I - I_O$



## SOT-23 Package Information



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.90	1.15
A1	0.00	0.10
A2	0.90	1.05
b	0.30	0.50
c	0.08	0.15
D	2.80	3.00
E	1.20	1.40
E1	2.25	2.55
e	0.95 REF.	
e1	1.80	2.00
L	0.55 REF.	
L1	0.30	0.50

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)