**GP ELECTRONICS**

DTC144EE　Digital Transistor(NPN)

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

Marking： 26

SOT-523

1.IN 2.GND 3.OUT

Schematic diagram
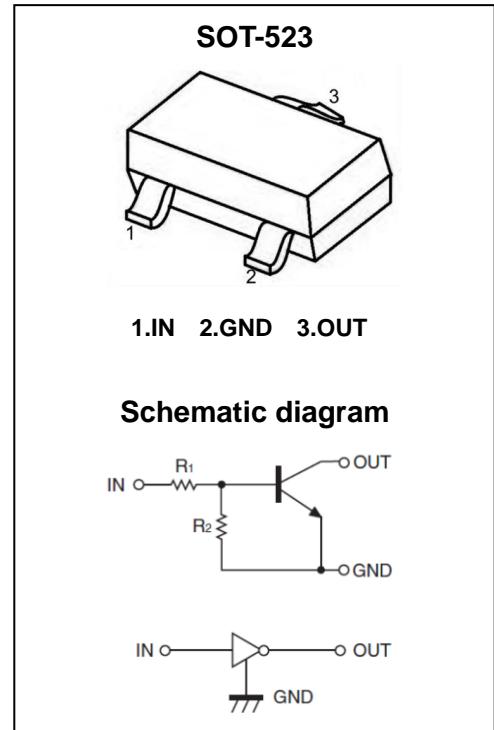
ABSOLUTE MAXIMUM RATINGS (T$_a$=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Supply Voltage	V$_{CC}$	50	V
Input Voltage	V$_{IN}$	-10~+40	V
Output Current	I$_O$	100	mA
Power Dissipation	P$_D$	150	mW
Junction Temperature	T$_J$	125	℃
Storage Temperature Range	T$_{STG}$	-45 ~ +125	℃

ELECTRICAL CHARACTERISTICS (T$_a$=25℃ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Input voltage	V$_{I(off)}$	V$_{CC}$=5V , I$_O$=100µA	0.3			V
	V$_{I(on)}$	V$_O$=0.3V , I$_O$=2mA			2.5	V
Output voltage	V$_{O(on)}$	I$_O$=10mA ,I$_I$=0.5mA			0.3	V
Output current	I$_{O(off)}$	V$_{CC}$=50V , V$_I$=0V			0.5	µA
DC current gain	G$_I$	V$_O$=5V ,I$_O$ =5mA	68			
Input resistance	R$_1$		32.9	47	61.1	kΩ
Resistance ratio	R$_2$/ R$_1$		0.8	1	1.2	
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
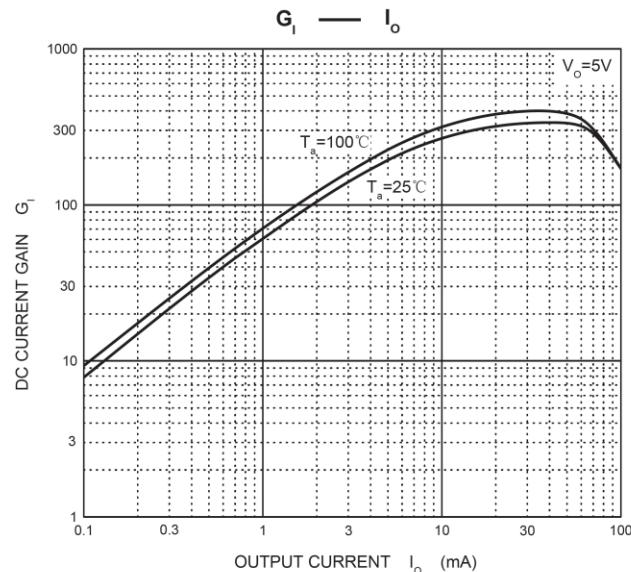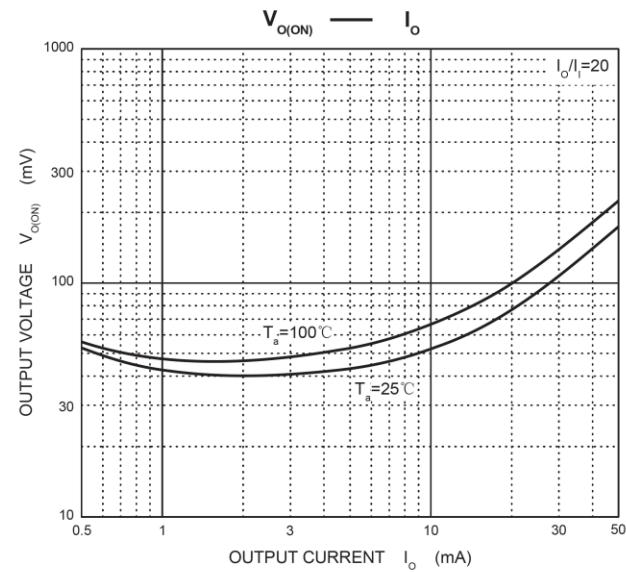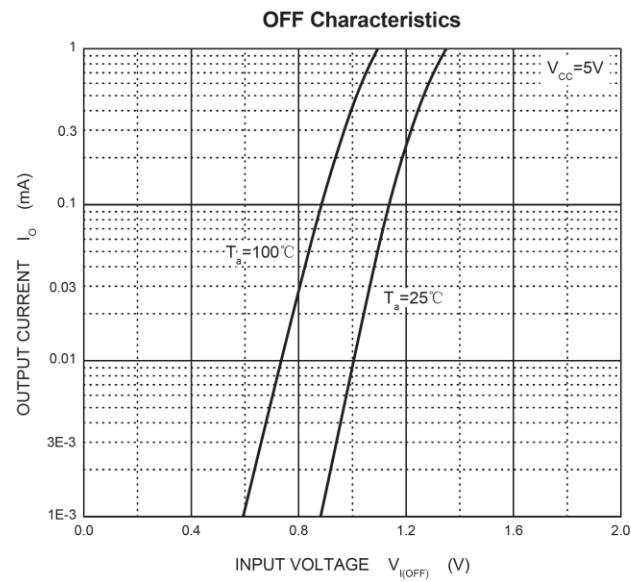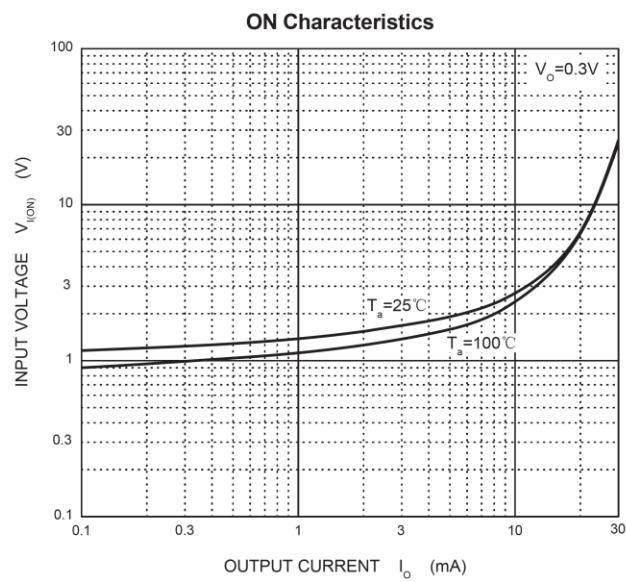
SOT-523 Package Information
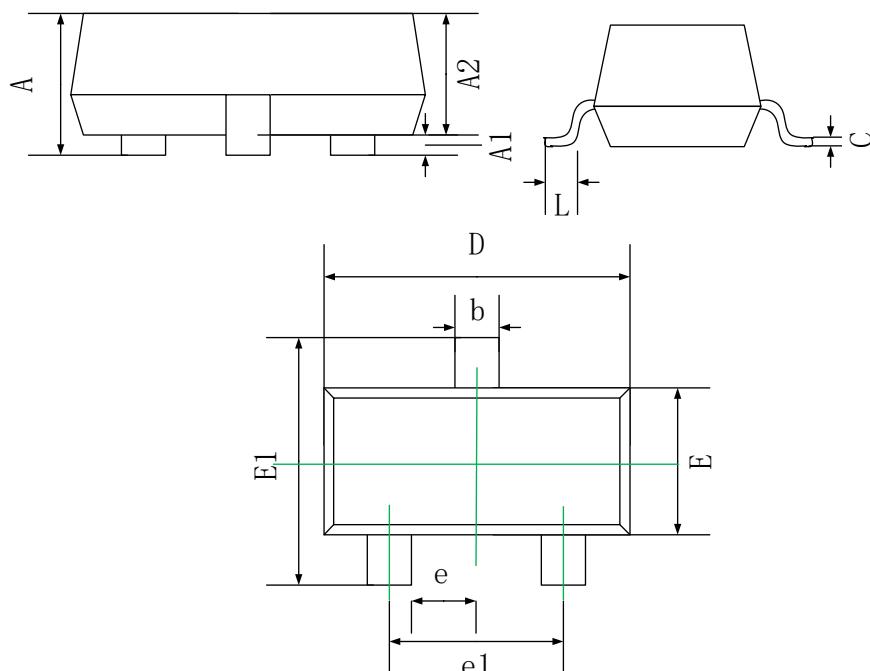
Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.70	0.90
A1	0.00	0.10
A2	0.70	0.80
b	0.25	0.35
c	0.10	0.20
D	1.50	1.70
E	0.70	0.90
E1	1.45	1.75
e	0.50 TYP.	
e1	0.90	1.10
L	0.40 REF.	
L1	0.26	0.46

SOT-523 Suggested Pad Layout
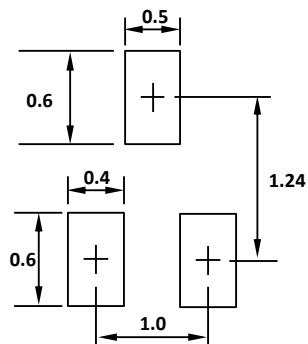
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

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)