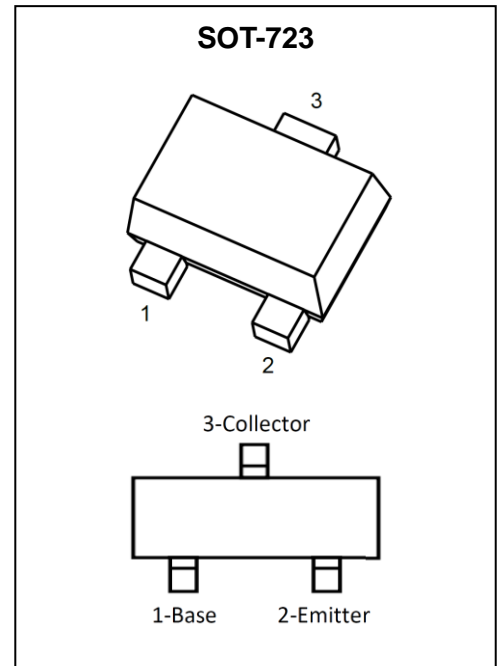
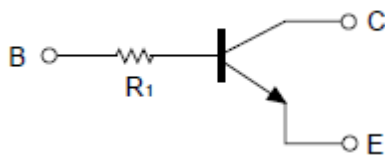


**DTC114TM Digital Transistor(NPN)**

**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

**Schematic diagram**



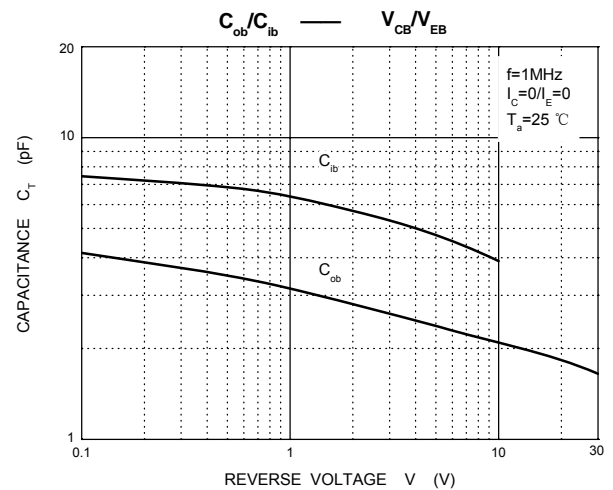
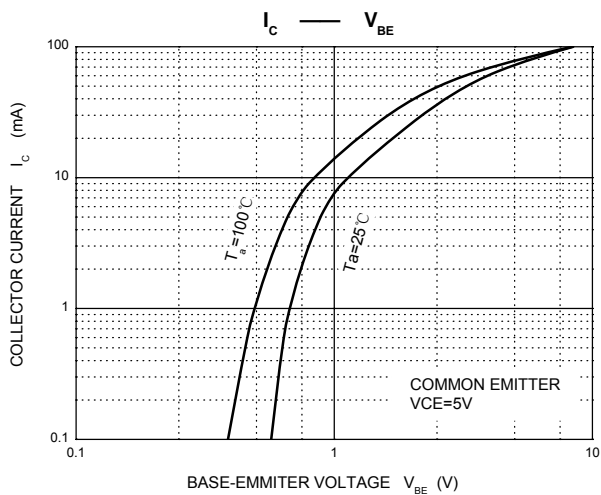
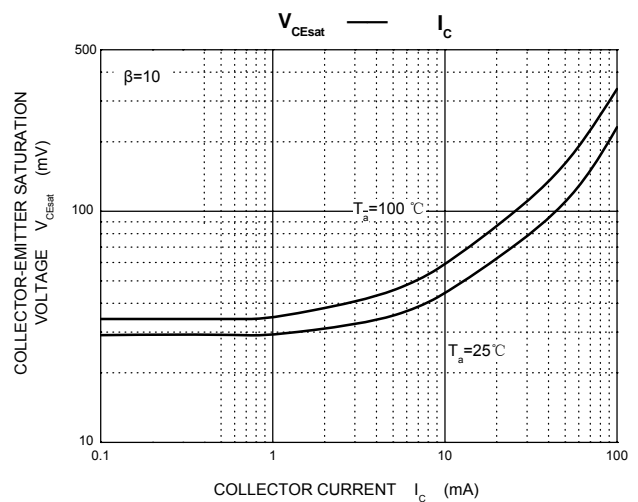
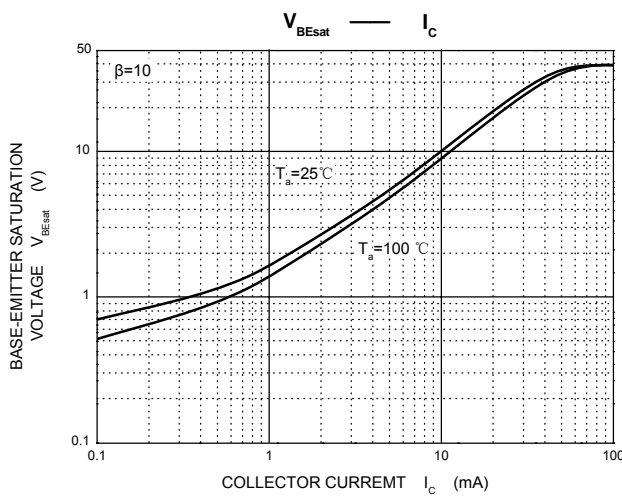
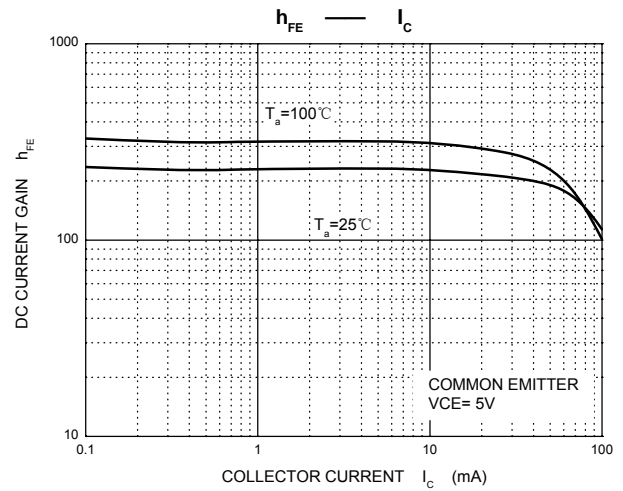
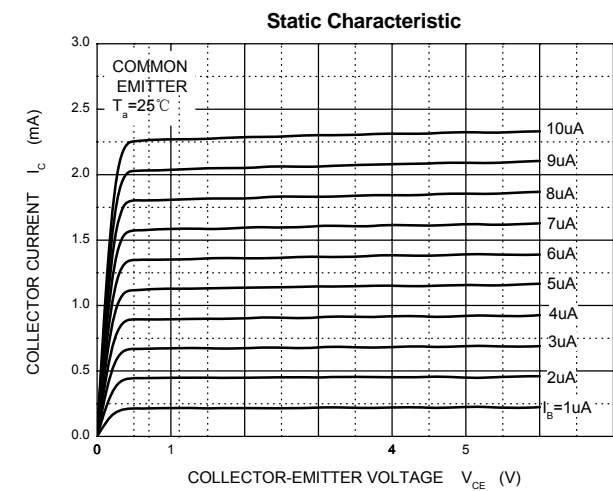
**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

Parameter	Symbol	Value	Unit
Collector-base Voltage	V <sub>CBO</sub>	50	V
Collector-emitter Voltage	V <sub>CEO</sub>	50	V
Collector current	I <sub>C</sub>	100	mA
Power Dissipation	P <sub>D</sub>	100	mW
Junction Temperature	T <sub>J</sub>	125	°C
Storage Temperature Range	T <sub>STG</sub>	-45 ~ +125	°C

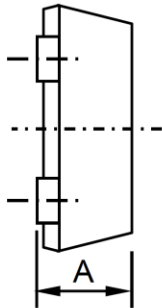
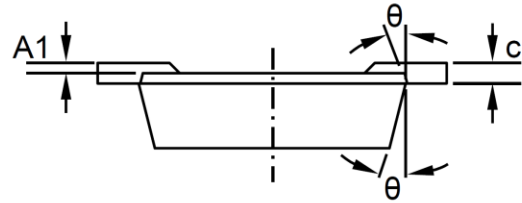
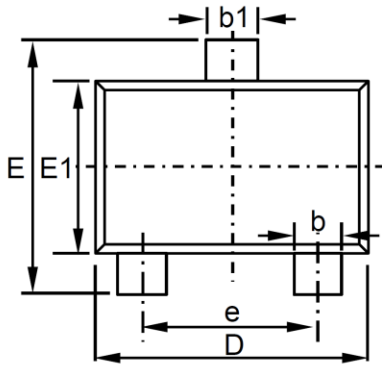
**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise noted)**

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Collector-base breakdown voltage	BV <sub>CBO</sub>	I <sub>C</sub> =50μA	50			V
Collector-emitter breakdown	BV <sub>CEO</sub>	I <sub>C</sub> =1mA	50			V
Emitter-base breakdown voltage	BV <sub>EBO</sub>	I <sub>E</sub> =50μA	5			V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> =50V			0.5	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> =4V			0.5	μA
Collector-emitter saturation	V <sub>CE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1mA			0.3	V
DC current transfer ratio	h <sub>FE</sub>	I <sub>C</sub> =1mA, V <sub>CE</sub> =5V	100		600	
Input resistance	R <sub>1</sub>		7	10	13	kΩ
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>E</sub> =5mA, f=1MHz		250		MHz

**Typical Characteristics**

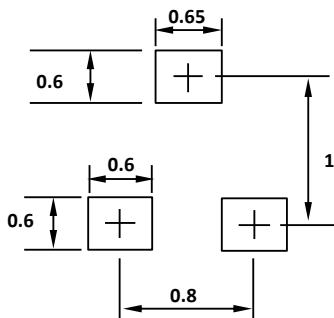


**SOT-723 Package Information**



SOT-723 (unit: mm)		
Dim.	Min.	Max.
A	0.40	0.50
A1	0.00	0.05
b	0.15	0.27
b1	0.20	0.37
c	0.06	0.16
D	1.10	1.30
E	1.10	1.30
E1	0.70	0.90
e	0.80 TYP.	
θ	7° REF.	

**SOT-723 Suggested Pad Layout**



- Note:
1. Controlling dimension: in millimeters.
  2. General tolerance:  $\pm 0.05$  mm.
  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\(格瑞宝\)](#)