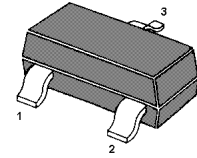


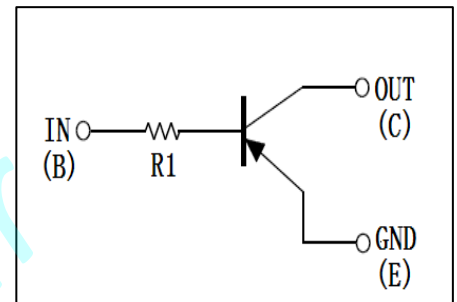
# DTA143TCA DIGITAL TRANSISTOR (PNP)

## 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 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



1.Base 2.Emitter 3.Collector  
SOT-23 Plastic Package



## MARKING:T93

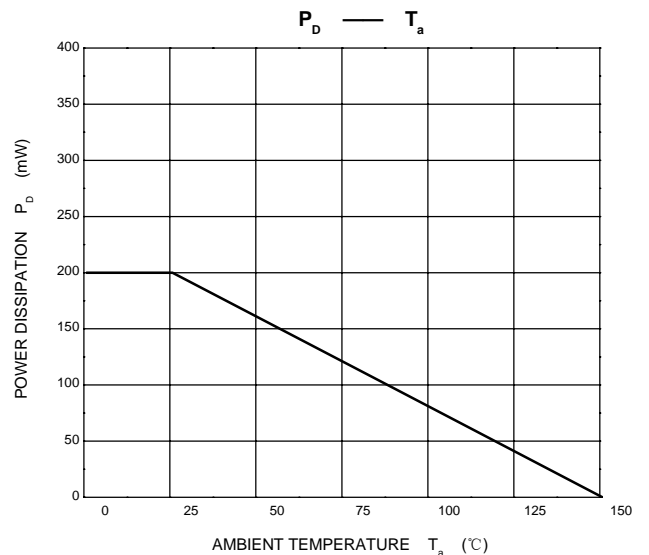
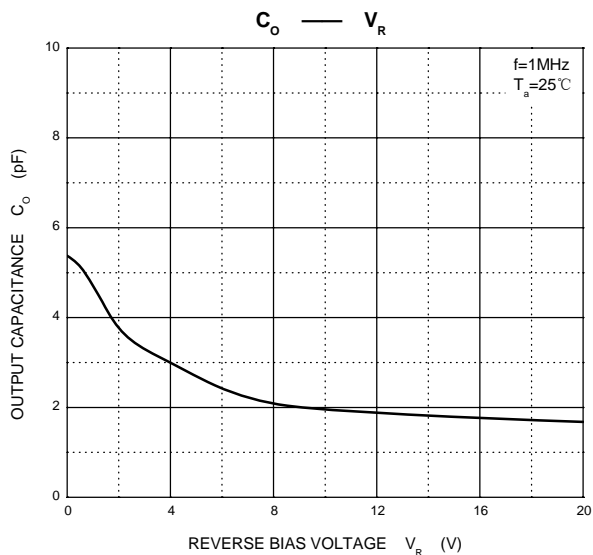
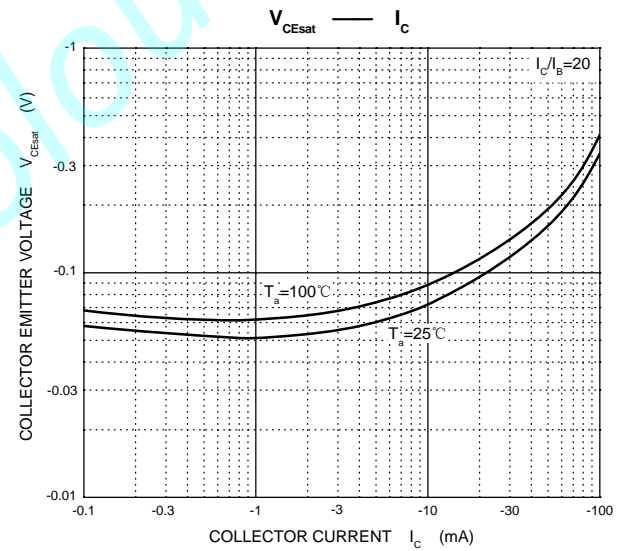
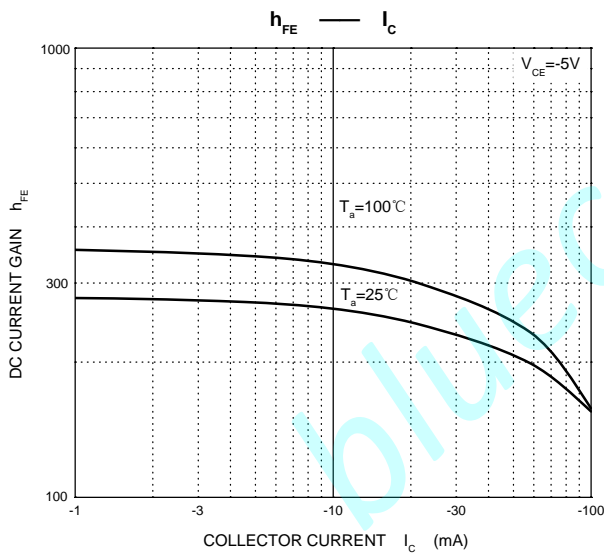
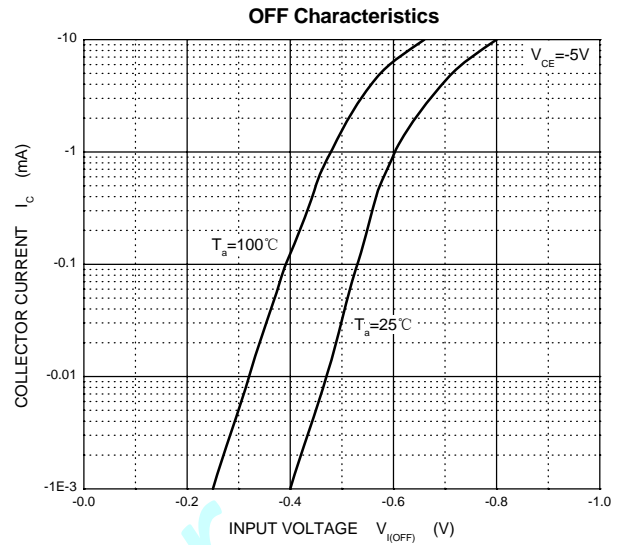
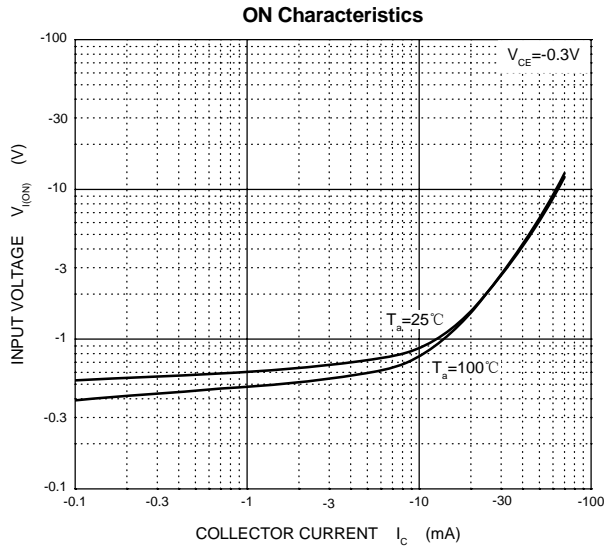
### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Collector Emitter Voltage	$V_{CEO}$	-50	V
Collector Base Voltage	$V_{CBO}$	-50	V
Emitter Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-100	mA
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-50\mu\text{A}, I_E=0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-50\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-50\text{V}, I_E=0$			-0.5	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-4\text{V}, I_C=0$			-0.5	$\mu\text{A}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-5\text{mA}, I_B=-0.25\text{mA}$			-0.3	V
DC current gain	$h_{FE}$	$V_{CE}=-5\text{V}, I_C=-1\text{mA}$	100		600	
Input resistor	$R_1$		3.29	4.7	6.11	k $\Omega$
Transition frequency	$f_T$	$V_{CE}=-10\text{V}, I_E=5\text{mA}, f=100\text{MHz}$		250		MHz

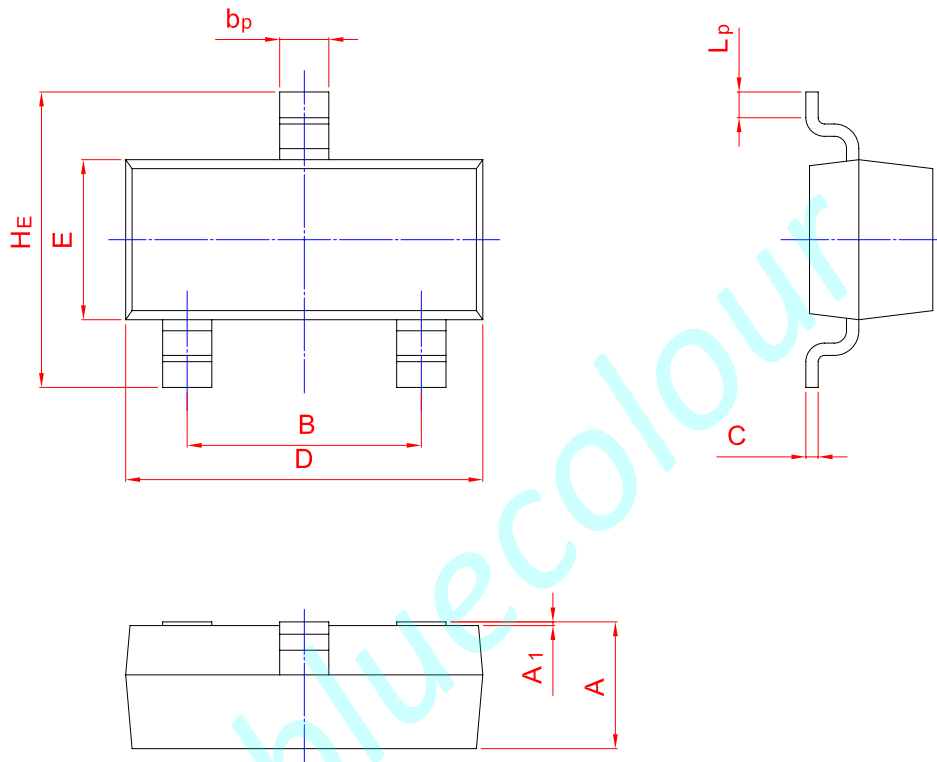
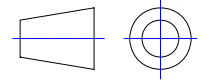
## Typical Characteristics



## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20