

Digital Transistors (Built-in Resistors)

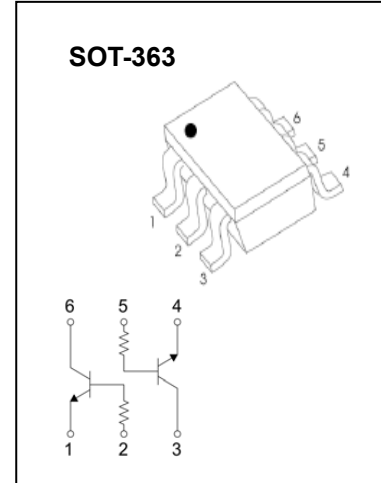
Dual Digital Transistors (NPN+NPN)

FEATURES

- Two DTC143T chips in a package
- Transistor elements are independent, eliminating interference
- Mounting cost and area can be cut in half

MARKING:H3

Absolute maximum ratings(Ta=25°C)



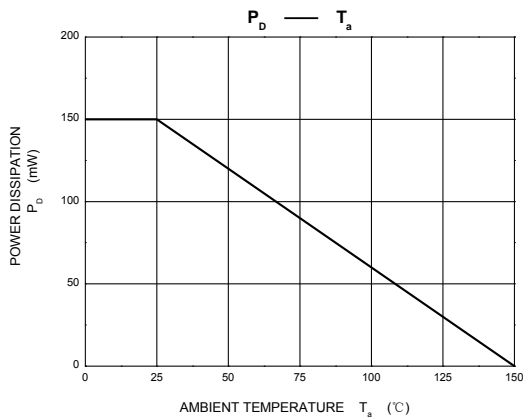
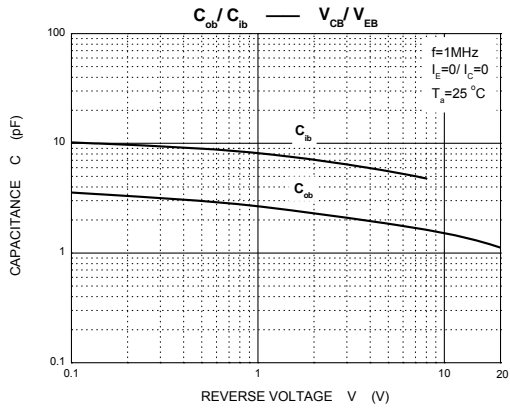
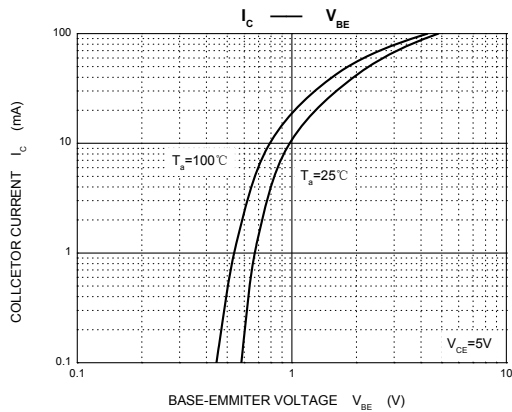
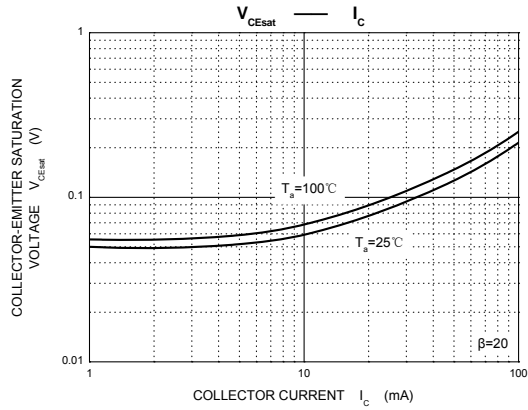
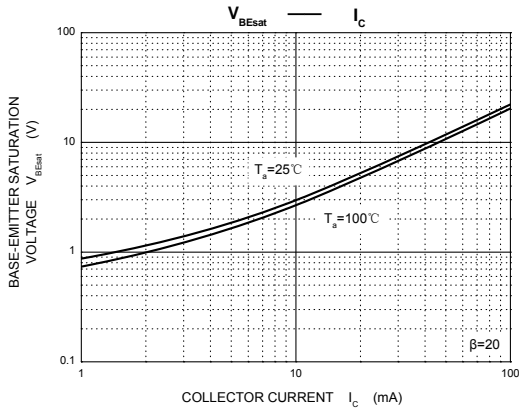
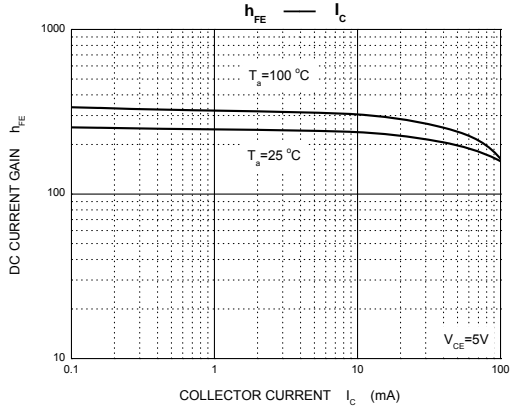
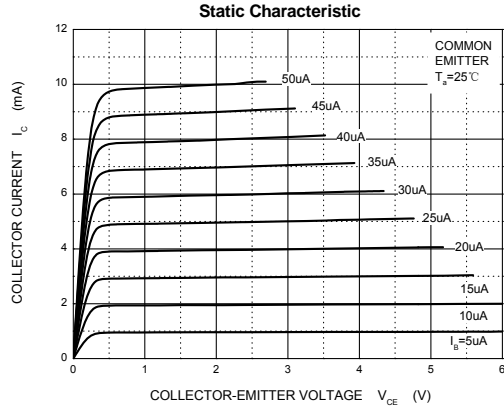
Parameter	Symbol	Value	Units
Collector-base voltage	$V_{(BR)CBO}$	50	V
Collector-emitter voltage	$V_{(BR)CEO}$	50	V
Emitter-base voltage	$V_{(BR)EBO}$	5	V
Collector current	I_C	100	mA
Collector Power dissipation	P_C	150	mW
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55~150	°C

Electrical characteristics (Ta=25°C)

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



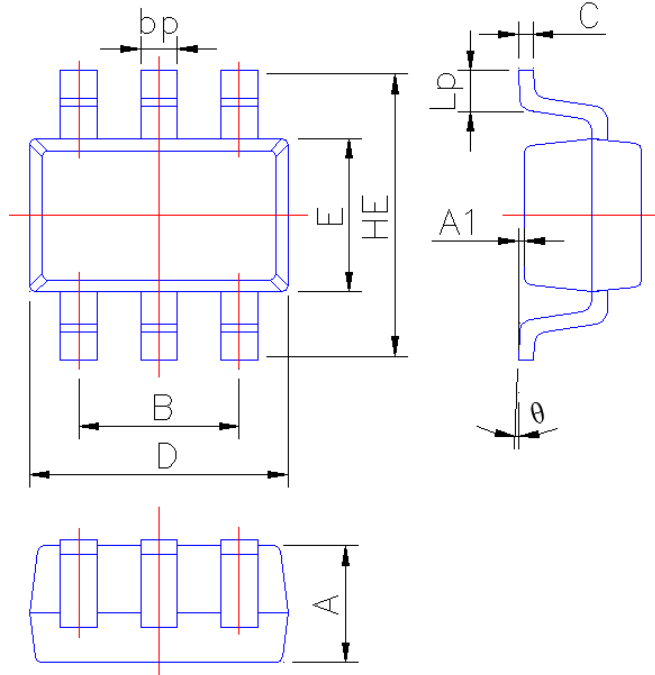
Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-363



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.00
A1	0.010	0.100
B	1.20	1.40
bp	0.25	0.45
C	0.09	0.15
D	2.00	2.20
E	1.15	1.35
HE	2.15	2.55
Lp	0.25	0.46
θ	0°	6°