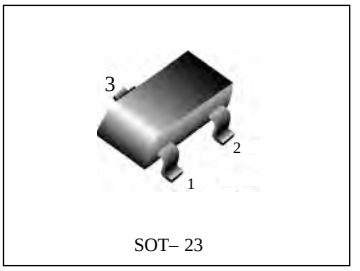
FTD1304 TRANSISTOR (NPN)



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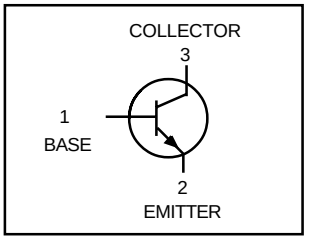
FEATURES

·High emitter-base voltage
·low on resistance

MARKING: HMAX

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

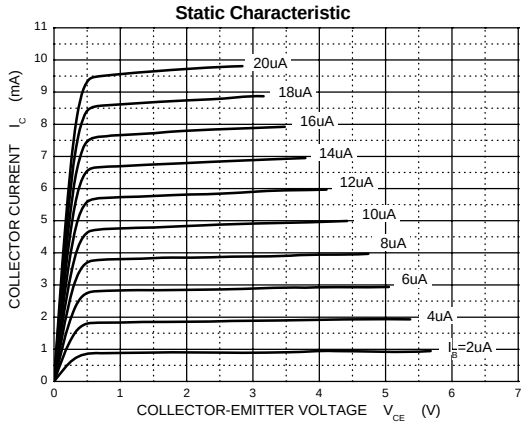
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	25	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	12	V
I_C	Collector Current -Continuous	0.3	A
P_C	Collector Power Dissipation	0.2	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

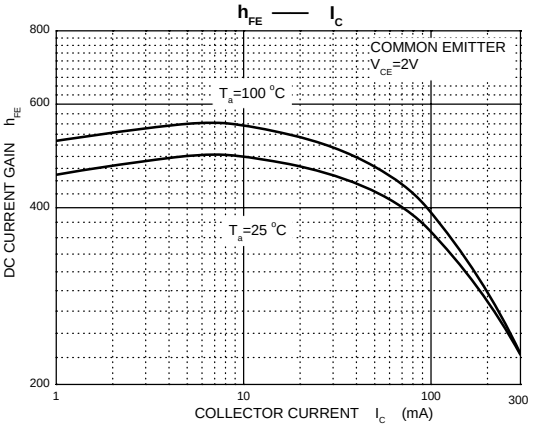


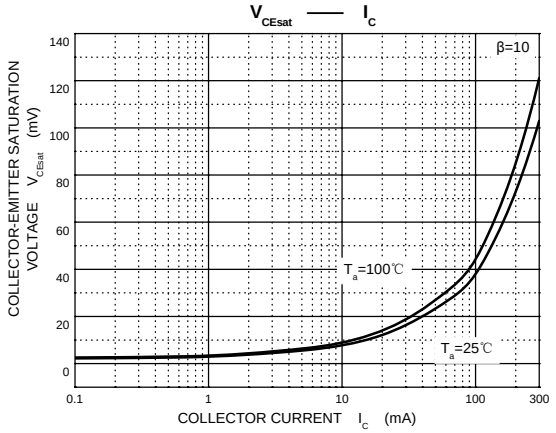
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

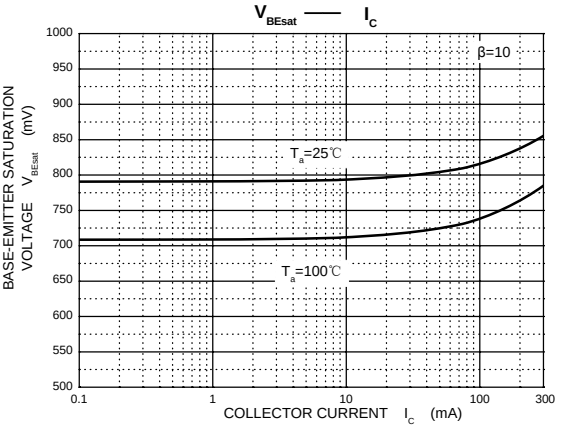
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	25			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	12			V
Collector cut-off current	I_{CBO}	V_{CB}=25 V, I_E=0			0.1	μ A
Emitter cut-off current	I_{EBO}	V_{EB}=12V, I_C=0			0.1	μ A
DC current gain	$h_{FE(FOR)}$	V_{CE}=2V, I_C=4 mA	200		1000	
	$h_{FE(REV)}$	V_{CE}= 2V, I_C= 4mA	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= 100mA, I_B=10 mA			0.25	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C= 100mA, I_B=10mA			1	V
Transition frequency	f_T	V_{CE}=10V, I_C= 1mA f=100MHz		60		MHz
output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		10		pF
On resistance	$R_{(on)}$	V_{in}=0.3V,I_B=1mA,f=1KHz		0.6		Ω

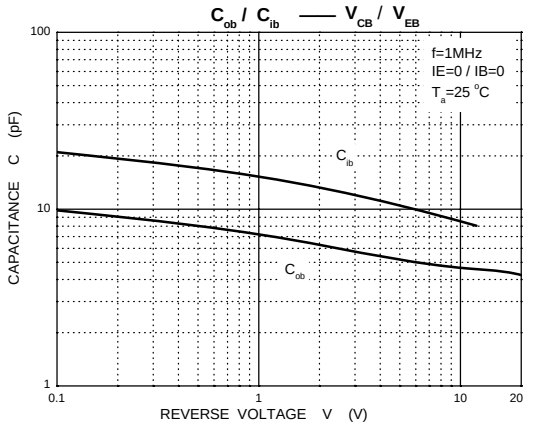
Typical Characteristics

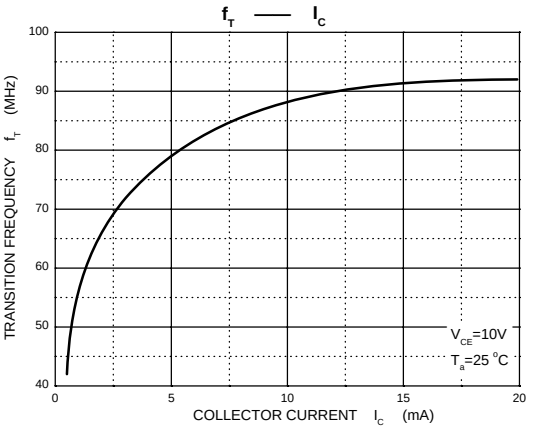


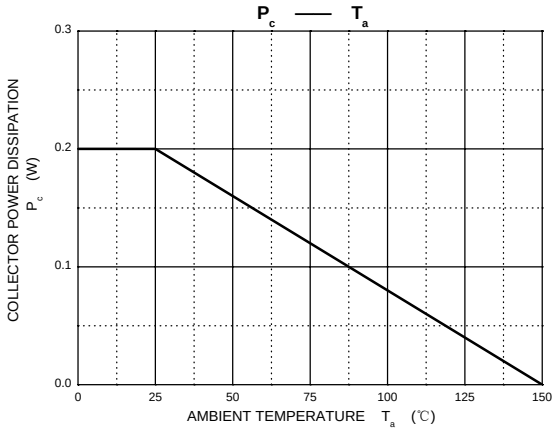




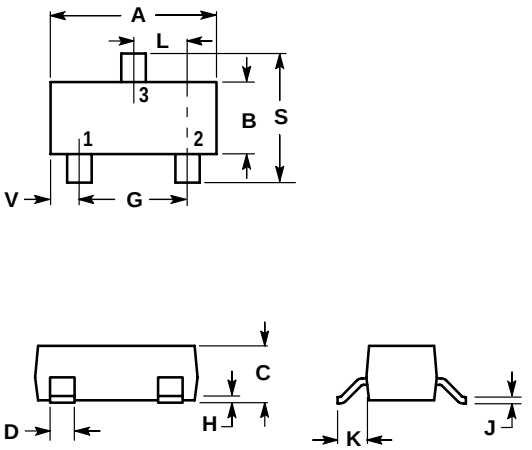








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NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

P N 1. ANODE
2. NO CONNECTION
3. CATHODE

