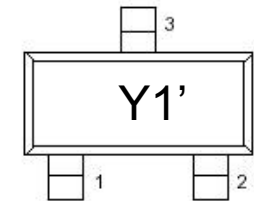


## CDT8050-ME(Sn)

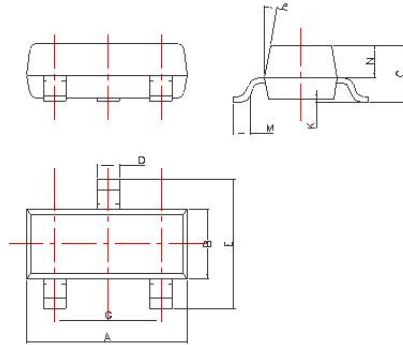
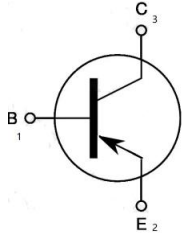
## TRANSISTOR

## Marking: Y1'

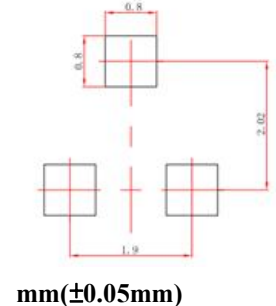
## SOT-23 Dimension

SOT-23  
Suggested Layout

Top view



DIM	Millimeters
A	2.85~3.04
B	1.30±0.10
C	1.00±0.10
D	0.45±0.05
E	2.25~2.55
G	1.90±0.1
K	0.00-0.10
M	0.20 min
N	0.60±0.10
P	7±2°



## MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	V <sub>CEO</sub>	25	Vdc
Collector-Base Voltage	V <sub>CB0</sub>	40	Vdc
Emitter-Base Voltage	V <sub>EBO</sub>	5.0	Vdc
Collector Current - Continuous	I <sub>C</sub>	1500	mAdc
Base Current	I <sub>B</sub>	160	mAdc

## THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Collector Power Dissipation	P <sub>c</sub>	300	mW
Junction and Storage Temperature	T <sub>j</sub> , T <sub>stg</sub>	150, -55 ~150	°C

## ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

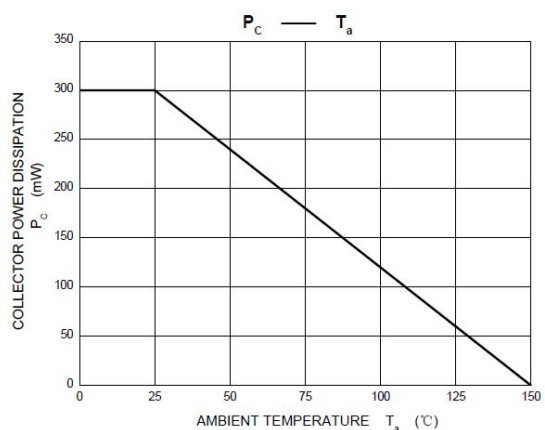
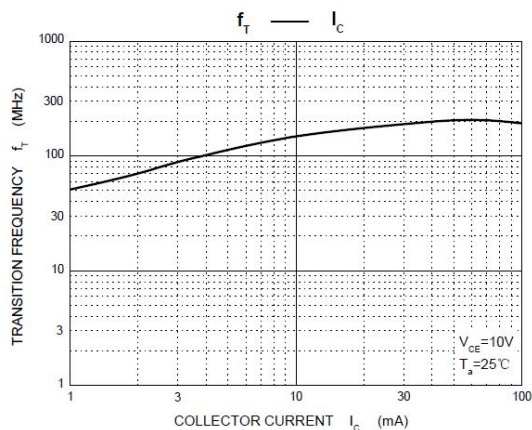
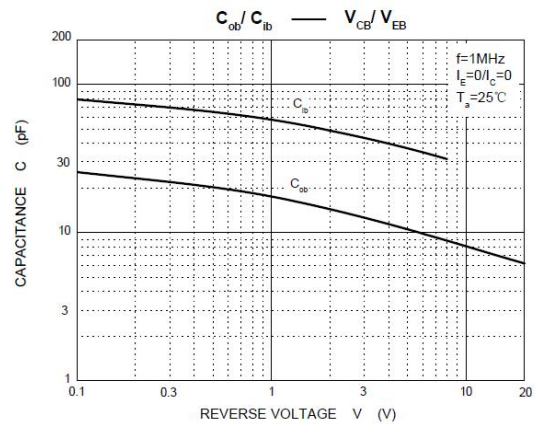
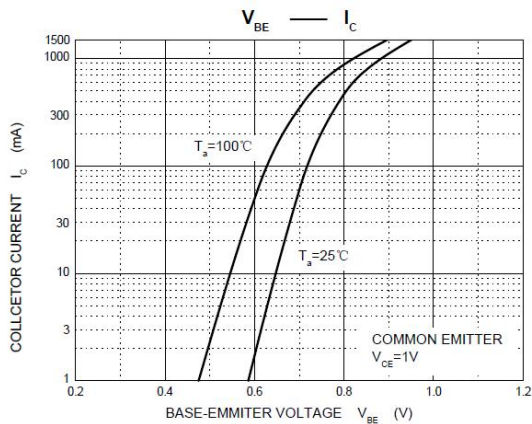
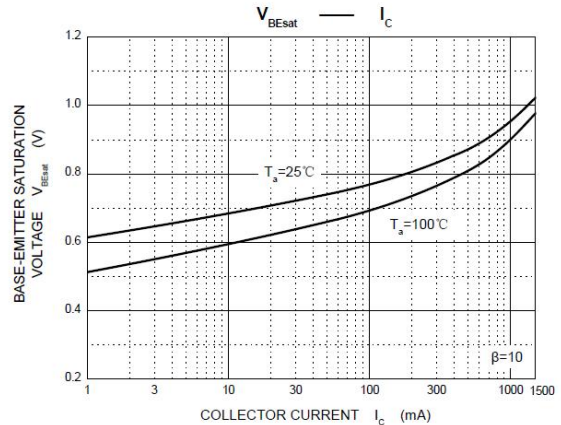
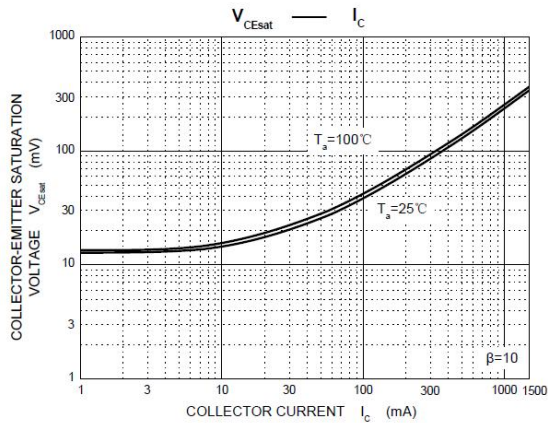
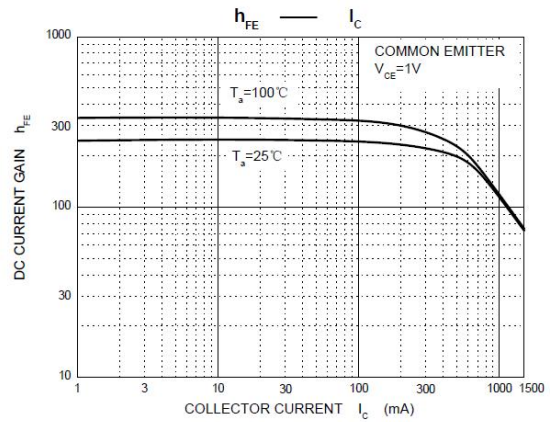
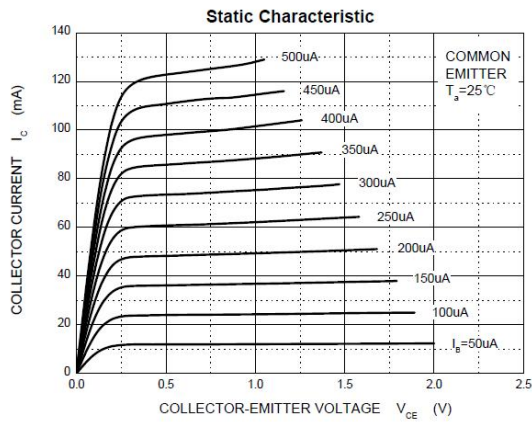
Characteristic	Symbol	Test Condition	Min	Type	Max	Unit
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> =30V, I <sub>E</sub> =0	--	--	0.1	μA
Collector- Emitter Cutoff Current	I <sub>CEO</sub>	V <sub>CB</sub> =20V, I <sub>E</sub> =0	--	--	0.1	μA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0	--	--	0.1	μA
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =10mA	25	--	--	V
Collector- Base Breakdown Voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =100μA	40	--	--	V
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =100μA	5	--	--	V
DC Current Gain	h <sub>FE</sub> (1)	V <sub>CE</sub> =1V, I <sub>C</sub> =100mA	200	--	350	--
	h <sub>FE</sub> (2)	V <sub>CE</sub> =1V, I <sub>C</sub> =1.5A	40	--	--	--
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =1200mA, I <sub>B</sub> =120mA	--	--	0.6	V
Base Emitter Voltage	V <sub>BE</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =10mA	100	0.8	1.2	V
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA	--	120	--	MHz
Collector Output Capacitance	V <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz	--	13	30	pF

- FR-5=1.0x0.75x0.062in.
- Alumina=0.4x0.3x0.024in, 99.5% alumina.
- Pulse Width ≤300μS; Duty Cycle ≤2.0%.

# CDT8050-ME(Sn)

## TRANSISTOR

### Typical Characteristics



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.