

Kingtronics®

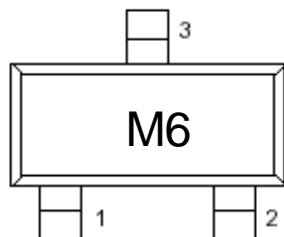
CDT9015-ME

TRANSISTOR

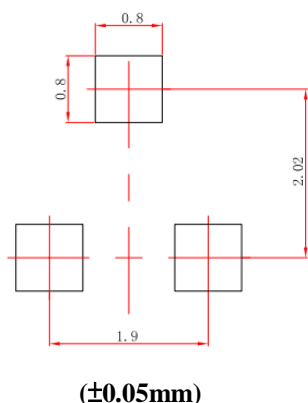
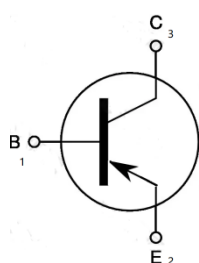
Marking: M6

Suggested Layout

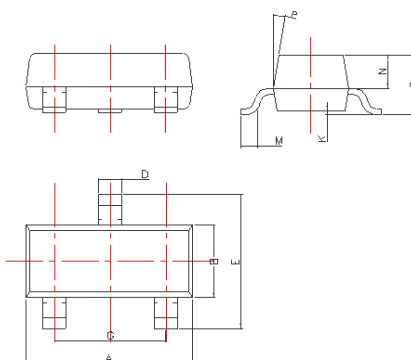
SOT-23



Top view



Dimension



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_{CEO}	-45	Vdc
Collector-Base Voltage	V_{CBO}	-50	Vdc
Emitter-Base Voltage	V_{EBO}	-5.0	Vdc
Collector Current - Continuous	I_C	-150	mAdc
Base Current	I_B	-30	mAdc

THERMAL CHARACTERISTICS

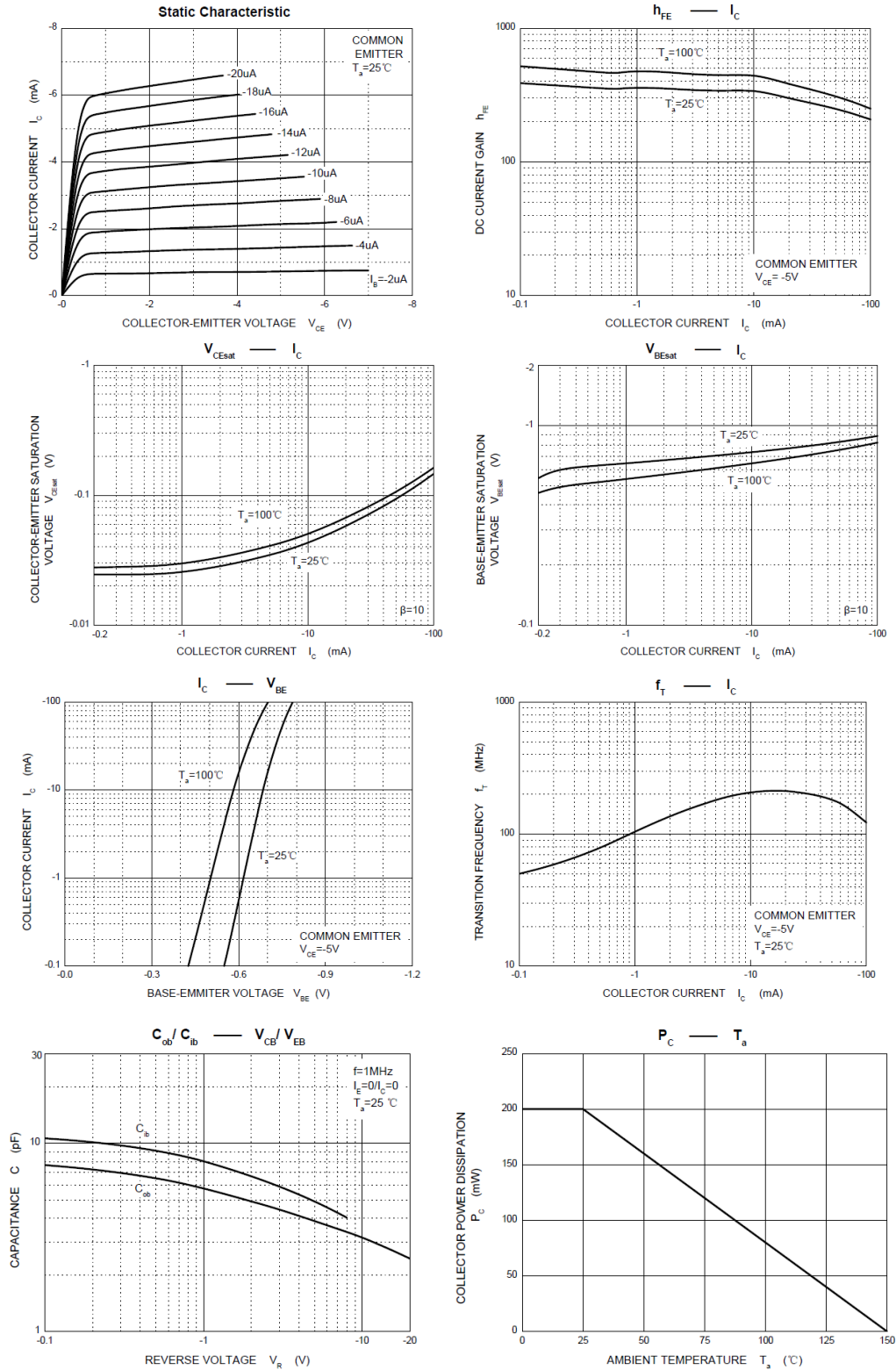
Characteristic	Symbol	Max	Unit
Collector Power Dissipation	P_c	300	mW
Junction and Storage Temperature	T_j , T_{stg}	150 · -55 ~150	°C

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Characteristic	Symbol	Test Condition	Min	Type	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=-50V, I_E=0$	--	--	-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-5V, I_C=0$	--	--	-0.1	μA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-100\mu A$	-50	--	--	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1.0mA$	-45	--	--	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-100\mu A$	-5	--	--	V
DC Current Gain	h_{FE}	$V_{CE}=-6V, I_C=-2mA$	200	--	450	--
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-100mA, I_B=-5mA$	--	--	0.6	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=-5.0V, I_C=-10mA$	--	--	-0.82	V
Transition Frequency	f_T	$V_{CE}=-5.0V, I_C=-10mA$	100	200	--	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=-10V, I_E=0,$ $f=1MHz$	--	4.0	7.0	pF

Kingtronics® International Company

Typical Performance Characteristics



Note: Specifications are subject to change without notice.