

**Kingtronics**®

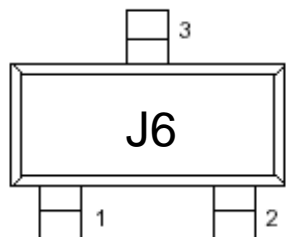
CDT9014-ME

**TRANSISTOR**

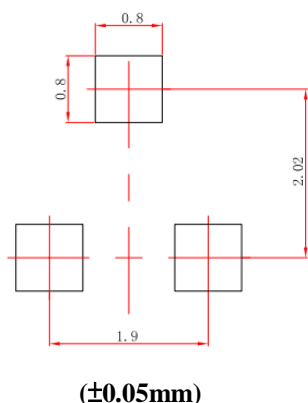
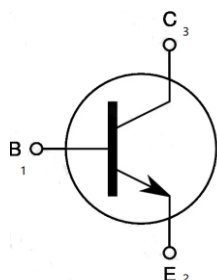
Marking: J6

Suggested Layout

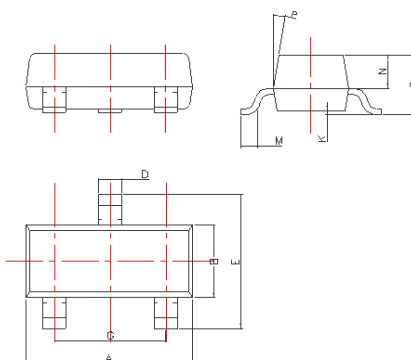
SOT-23



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

**THERMAL CHARACTERISTICS**

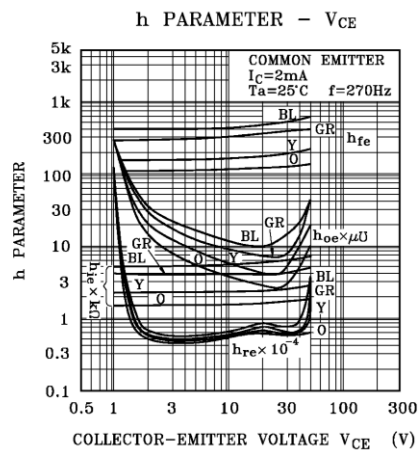
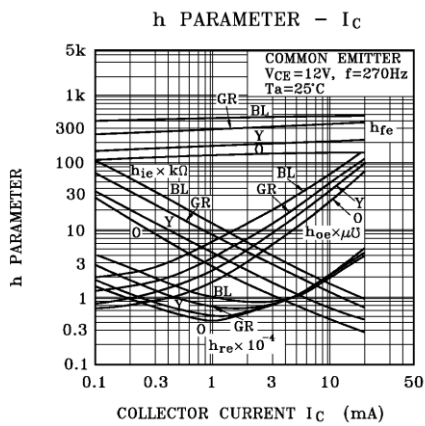
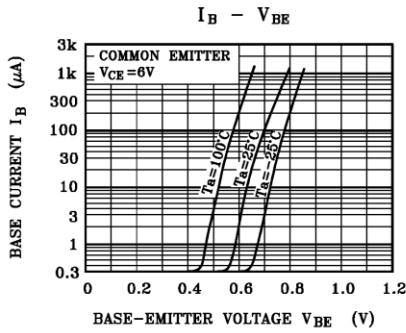
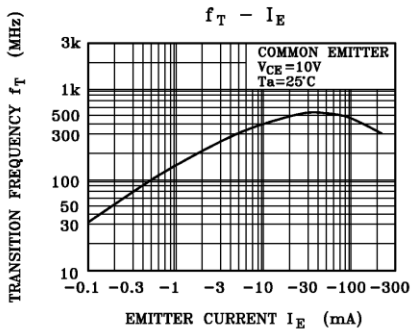
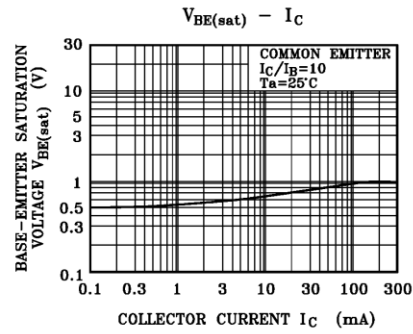
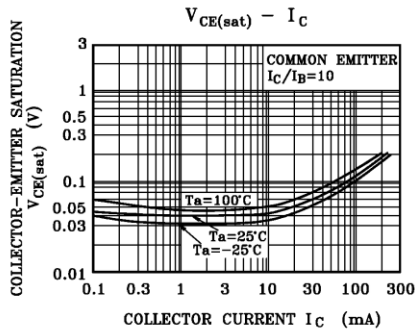
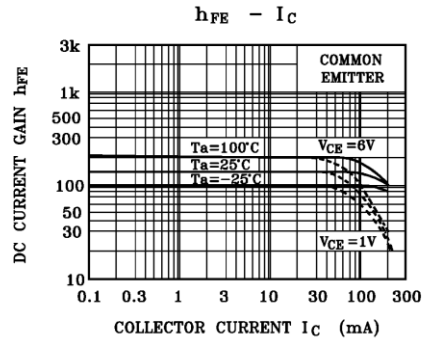
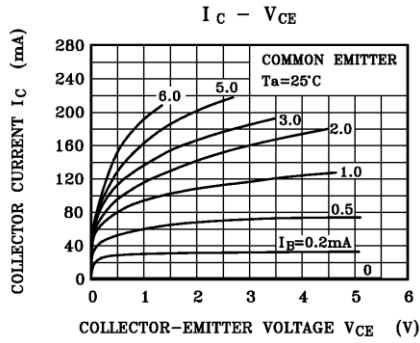
Characteristic	Symbol	Max	Unit
Collector Power Dissipation	$P_c$	300	mW
Junction and Storage Temperature	$T_j$ , $T_{stg}$	150 -55 ~ 150	°C

**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	180	--	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.