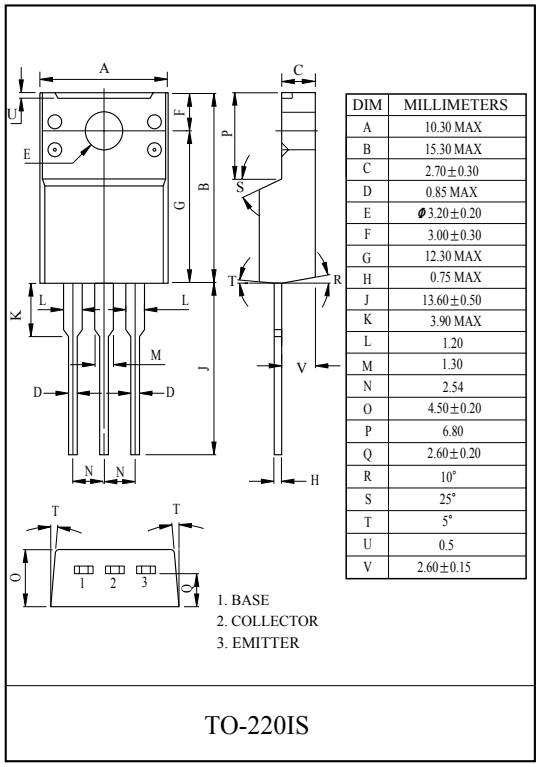
KTD1414

EPITAXIAL PLANAR NPN TRANSISTOR

SWITCHING APPLICATIONS.
HAMMER DRIVER, PULSE MOTOR DRIVER APPLICATIONS.

FEATURES

· High DC Current Gain : h_{FE}=2000(Min.) at V_{CE}=2V, I_C=1A.



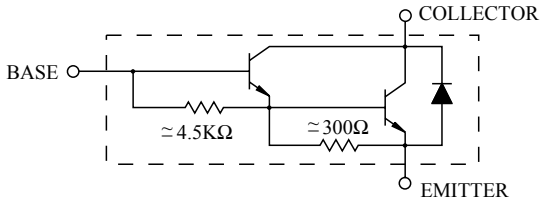
DIM	MILLIMETERS
A	10.30 MAX
B	15.30 MAX
C	2.70±0.30
D	0.85 MAX
E	Ø3.20±0.20
F	3.00±0.30
G	12.30 MAX
H	0.75 MAX
J	13.60±0.50
K	3.90 MAX
L	1.20
M	1.30
N	2.54
O	4.50±0.20
P	6.80
Q	2.60±0.20
R	10°
S	25°
T	5°
U	0.5
V	2.60±0.15

TO-220IS

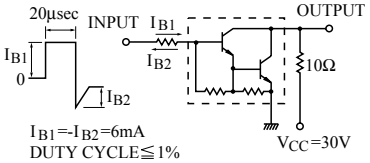
MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	4	A
Base Current	I_B	0.5	A
Collector Power Dissipation (Tc=25℃)	P_C	25	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 ~ 150	℃

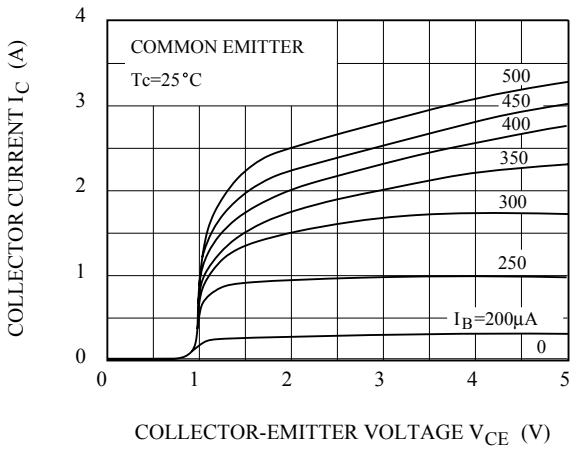
EQUIVALENT CIRCUIT



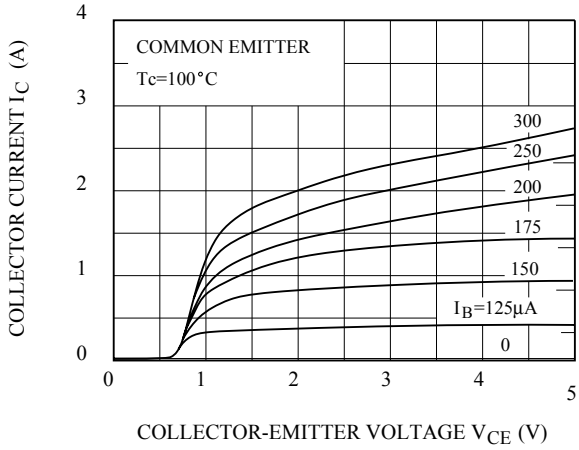
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=100V, I_E=0	-	-	20	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=5V, I_C=0	-	-	2.5	mA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C=10mA, I_B=0	80	-	-	V
DC Current Gain		$h_{FE}(1)$	V_{CE}=2V, I_C=1A	2000	-	-	
		$h_{FE}(2)$	V_{CE}=2V, I_C=3A	1000	-	-	
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	I_C=3A, I_B=6mA	-	-	1.5	V
	Base-Emitter	$V_{BE(sat)}$	I_C=3A, I_B=6mA	-	-	2.0	
Switching Time	Turn-on Time	t_{on}		-	0.2	-	μS
	Storage Time	t_{stg}		-	1.5	-	
	Fall Time	t_f		-	0.6	-	

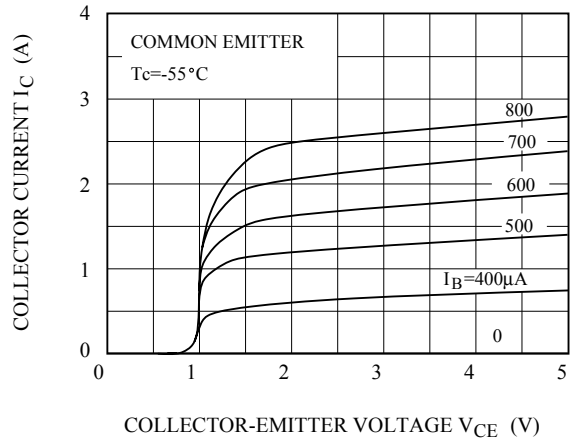
I_C - V_{CE}



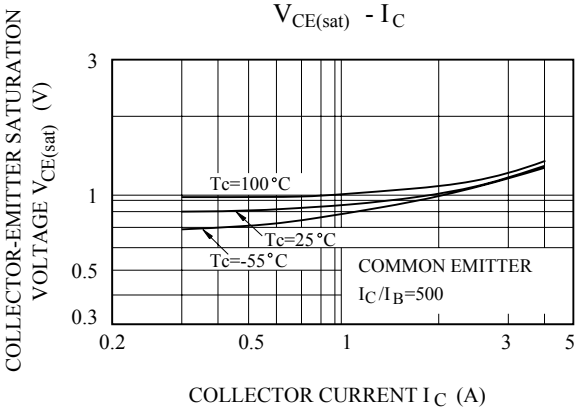
I_C - V_{CE}



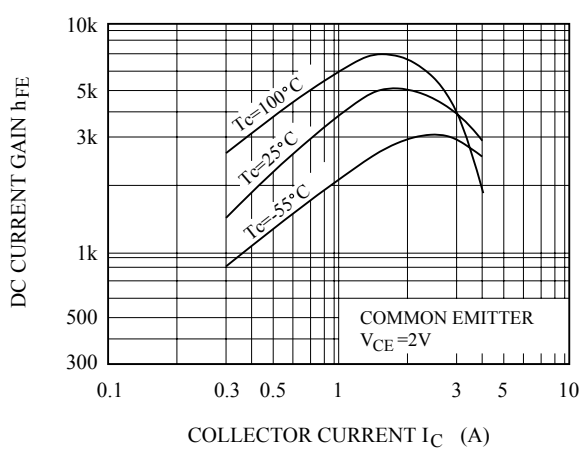
I_C - V_{CE}



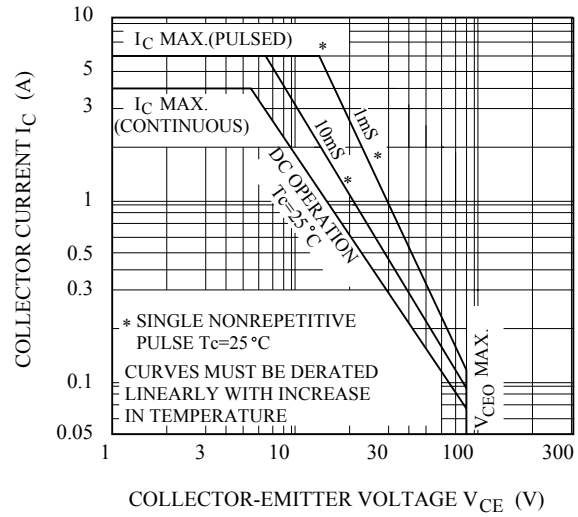
$V_{CE(sat)}$ - I_C



h_{FE} - I_C



SAFE OPERATING AREA



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