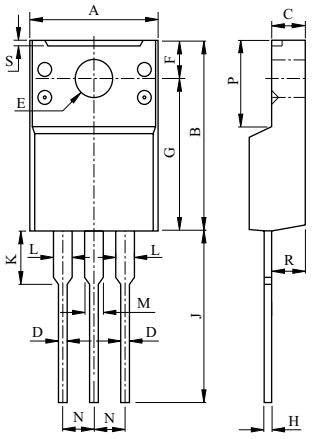
KTC2036

EPITAXIAL PLANAR NPN TRANSISTOR

GENERAL PURPOSE APPLICATION.

FEATURES

· Low Collector Saturation Voltage
: $V_{CE(sat)}$=1.0V(Max) at I_C=2A, I_B=0.2A



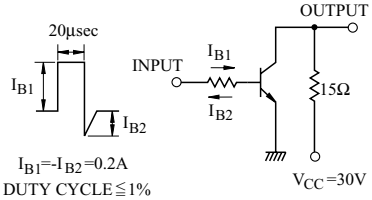
DIM	MILLIMETERS
A	10.0±0.3
B	15.0±0.3
C	2.70±0.3
D	0.76+0.09/-0.05
E	Φ3.2±0.2
F	3.0±0.3
G	12.0±0.3
H	0.5+0.1/-0.05
J	13.6±0.5
K	3.7±0.2
L	1.2+0.25/-0.1
M	1.5+0.25/-0.1
N	2.54±0.1
P	6.8±0.1
Q	4.5±0.2
R	2.6±0.2
S	0.5 Typ

TO-220IS

MAXIMUM RATING (Ta=25℃)

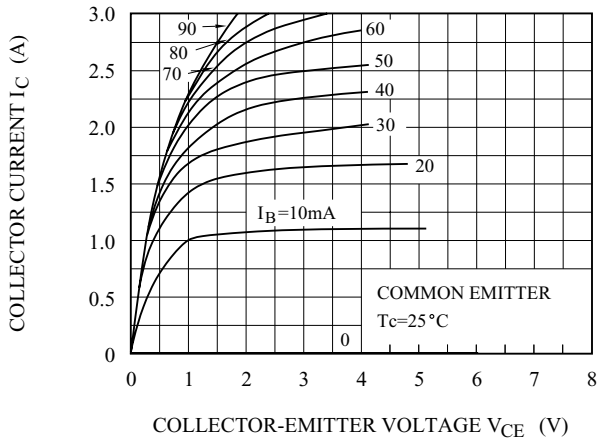
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	80	V
Collector-Emitter Voltage		V_{CEO}	60	V
		V_{CER}	100	
Emitter-Base Voltage		V_{EBO}	10	V
Collector Current		I_C	3	A
Base Current		I_B	0.5	A
Collector Power Dissipation	Ta=25℃	P_C	2	W
	Tc=25℃		20	
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55 150	℃

ELECTRICAL CHARA CTERISTICS (Ta=25℃)

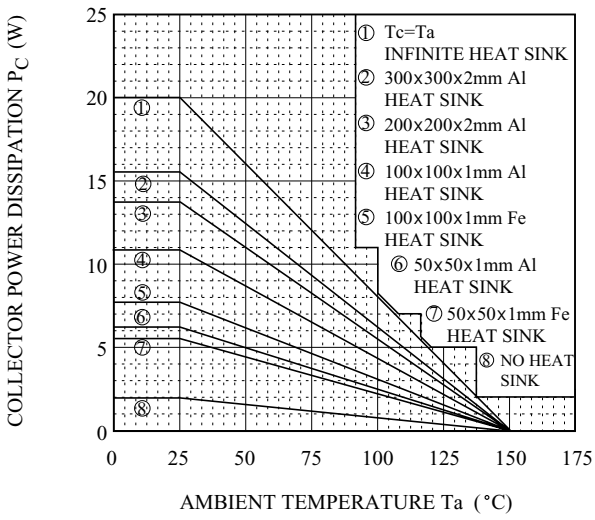
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=80V, I_E=0	-	-	1	μA
		I_{CER}	V_{CE}=100V, R_{BE}=10kΩ	-	-	1	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=10V, I_C=0	-	-	1	μA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C=50mA, I_B=0	60	-	-	V
DC Current Gain		$h_{FE\ (1)}$ (Note)	V_{CE}=5V, I_C=1mA	80	-	-	
		$h_{FE\ (2)}$	V_{CE}=5V, I_C=0.5A	150	-	250	
Collector Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=2A, I_B=0.2A	-	0.25	1.0	V
Base-Emitter Voltage		V_{BE}	V_{CE}=5V, I_C=0.5A	-	0.7	1.0	V
Transition Frequency		f_T	V_{CE}=5V, I_C=0.5A	-	30	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	35	-	pF
Switching Time	Turn-on Time	t_{on}		-	0.085	-	μS
	Storage Time	t_{stg}		-	1.02	-	
	Fall Time	t_f		-	0.041	-	

* Note) : hFE Classification A : 80 ~ , – : 100 ~

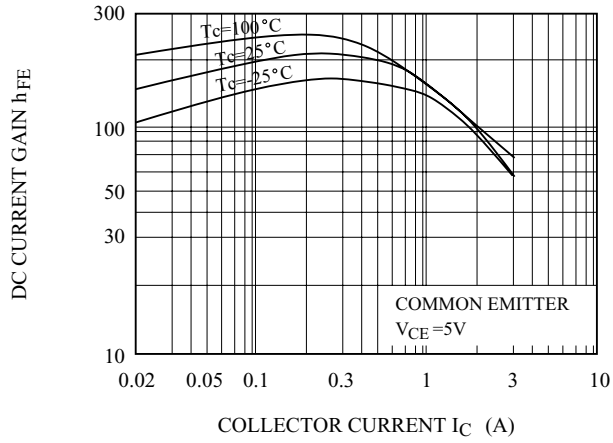
I_C - V_{CE}



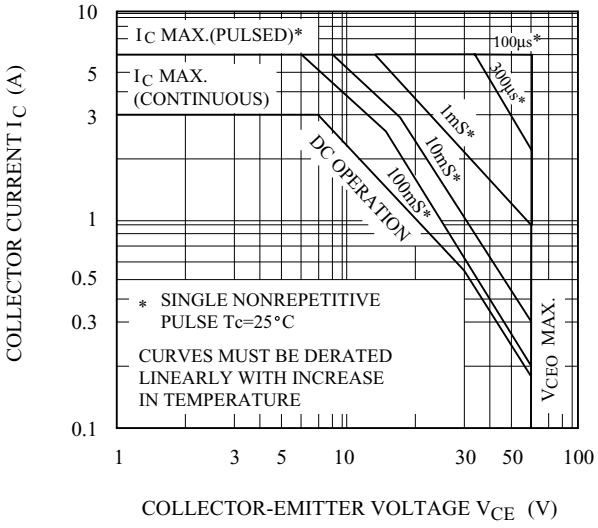
Pc - Ta



h_{FE} - I_C



SAFE OPERATING AREA



$V_{CE(sat)}$ - I_C