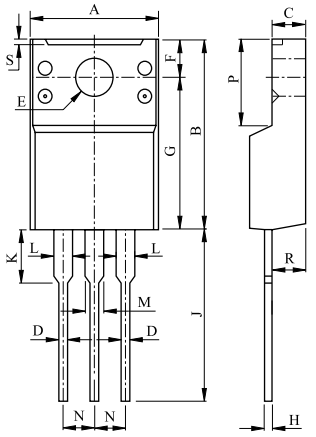
KTC4419

TRIPLE DIFFUSED NPN TRANSISTOR

SWITCHING REGULATOR APPLICATION.
HIGH VOLTAGE SWITCHING APPLICATION.
HIGH SPEED DC-DC CONVERTER APPLICATION.

FEATURES

- Excellent Switching Times.
  : t_{on}=1.0 μS(Max.), t_f=0.5 μS(Max.) at I_C=1.5A.
- High Collector Voltage : V_{CEO}=400V.



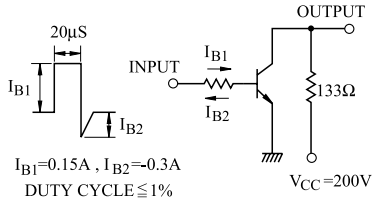
DIM	MILLIMETERS
A	10.0±0.3
B	15.0±0.3
C	2.70±0.3
D	0.76+0.09/-0.05
E	Φ3.2±0.2
F	3.0±0.3
G	12.0±0.3
H	0.5+0.1/-0.05
J	13.6±0.5
K	3.7±0.2
L	1.2+0.25/-0.1
M	1.5+0.25/-0.1
N	2.54±0.1
P	6.8±0.1
Q	4.5±0.2
R	2.6±0.2
S	0.5 Typ

TO-220IS

MAXIMUM RATING (Ta=25℃)

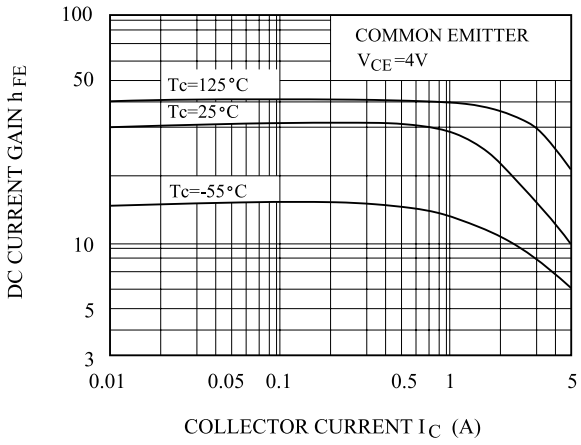
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	500	V
Collector-Emitter Voltage		V_{CEO}	400	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current	DC	I_C	5	A
	Pulse	I_{CP}	10	
Base Current		I_B	2	A
Collector Power Dissipation (Tc=25℃)		P_C	35	W
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55 ~ 150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

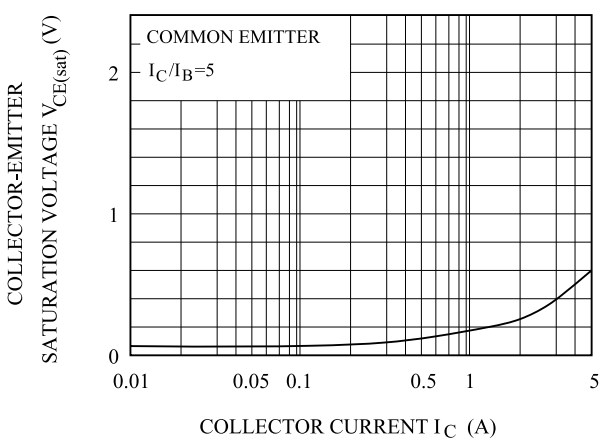
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=500V, I_E=0	-	-	100	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=7V, I_C=0	-	-	100	μA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C=10mA, I_B=0	400	-	-	V
DC Current Gain		h_{FE}(1)	V_{CE}=4V, I_C=0.1A	20	-	-	
		h_{FE}(2)	V_{CE}=4V, I_C=1.5A	10	-	40	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=1.5A, I_B=0.3A	-	-	0.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	I_C=1.5A, I_B=0.3A	-	-	1.0	V
Transition Frequency		f_T	V_{CE}=12V, I_C=0.3A	-	20	-	MHz
Switching Time	Turn-on Time	t_{on}		-	-	1.0	μS
	Storage Time	t_{stg}		-	-	2.5	
	Fall Time	t_f		-	-	0.5	

I_{B1}=0.15A , I_{B2}=-0.3A
DUTY CYCLE≦1%

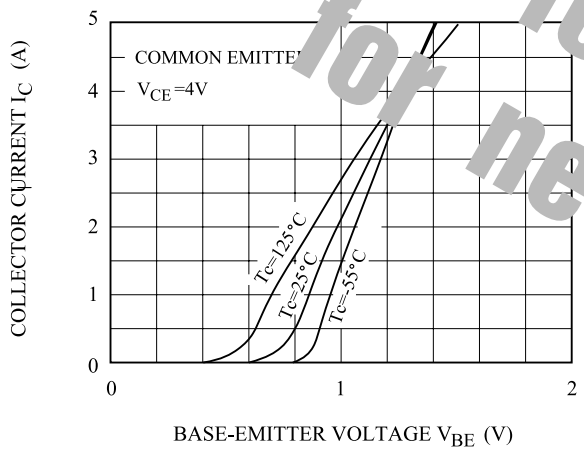
h_{FE} - I_C



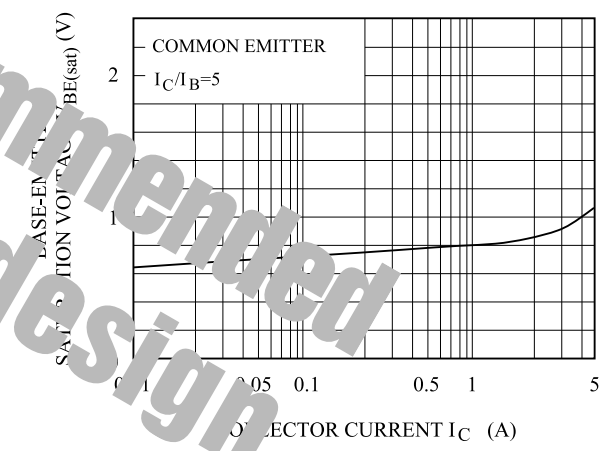
$V_{CE(sat)}$ - I_C



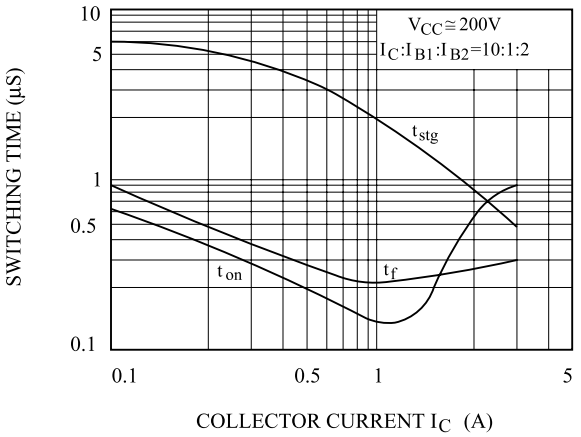
I_C - V_{BE}



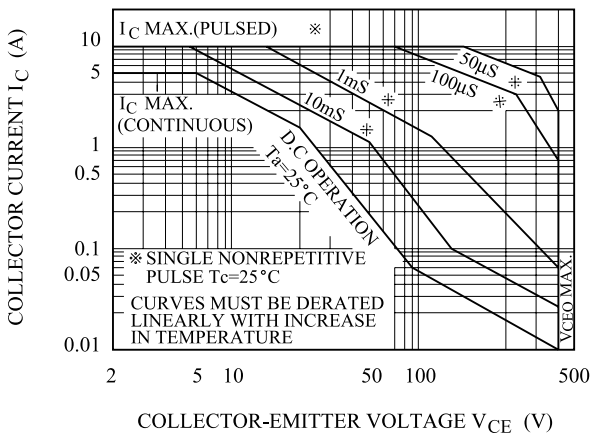
$V_{BE(sat)}$ - I_C



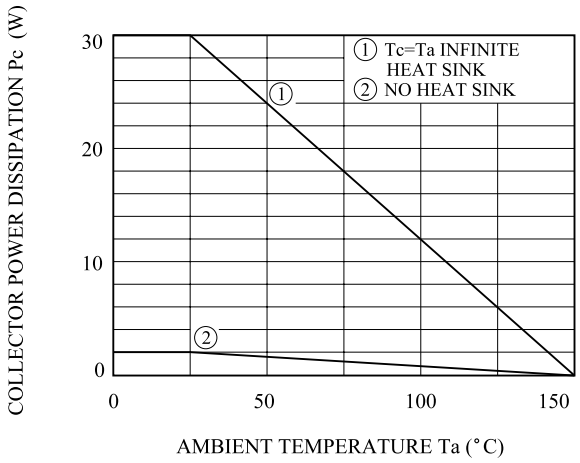
SWITCHING CHARACTERISTICS



SAFE OPERATING AREA



Pc - Ta



REVERSE BIAS SAFE OPERATING AREA