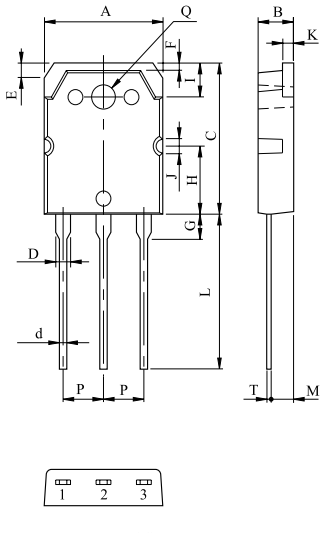
KTD1510

TRIPLE DIFFUSED NPN TRANSISTOR

HIGH POWER AMPLIFIER
DARLINGTON TRANSISTOR.

FEATURES

- Complementary to KTB2510.
- Recommended for 60W Audio Amplifier Output Stage.



DIM	MILLIMETERS
A	15.9 MAX
B	4.8 MAX
C	20.0±0.3
D	2.0±0.3
d	1.0+0.3/-0.25
E	2.0
F	1.0
G	3.3 MAX
H	9.0
I	4.5
J	2.0
K	1.8 MAX
L	20.5±0.5
M	2.8
P	5.45±0.2
Q	Φ3.2±0.2
T	0.6+0.3/-0.1

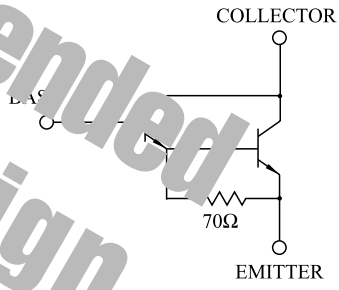
1. BASE
2. COLLECTOR (HEAT SINK)
3. EMITTER

TO-3P(N)

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	160	V
Collector-Emitter Voltage	V_{CEO}	150	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	10	A
Base Current	I_B	1	A
Collector PowerDissipation (Tc=25℃)	P_C	100	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~150	℃

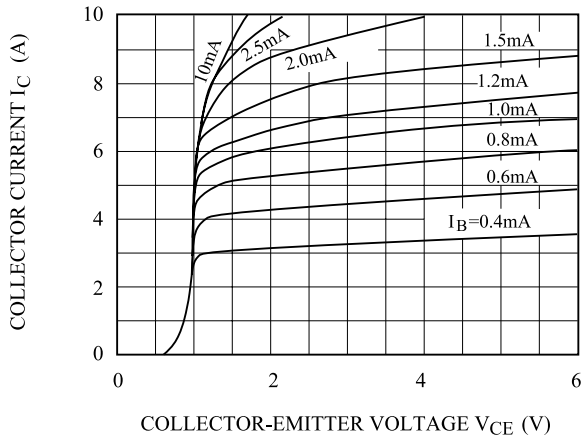
EQUIVALENT CIRCUIT



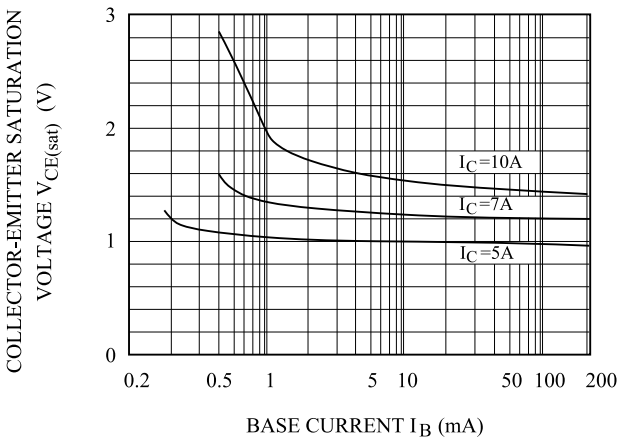
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=160V, I_E=0	-	-	100	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0	-	-	100	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=30mA, I_B=0	150	-	-	V
DC Current Gain	h_{FE}	V_{CE}=4V, I_C=7A	5000	12000	20000	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=7A, I_B=7mA	-	-	2.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=7A, I_B=7mA	-	-	3.0	V
Transition Frequency	f_T	V_{CE}=12V, I_C=2A	-	50	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V, f=1MHz, I_E=0	-	230	-	pF

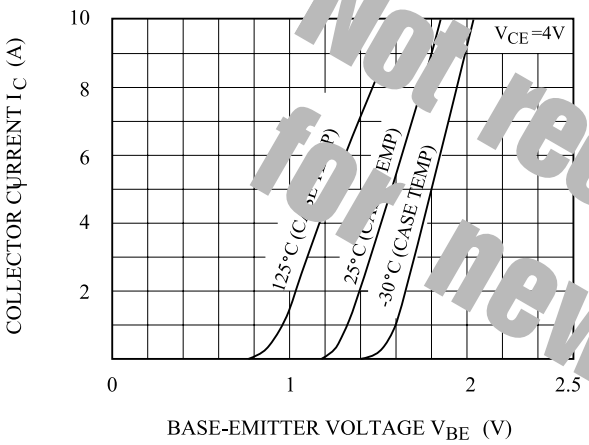
I_C - V_{CE}



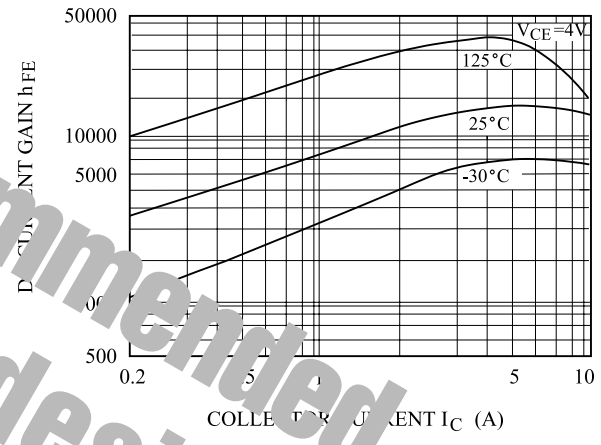
$V_{CE(sat)}$ - I_B



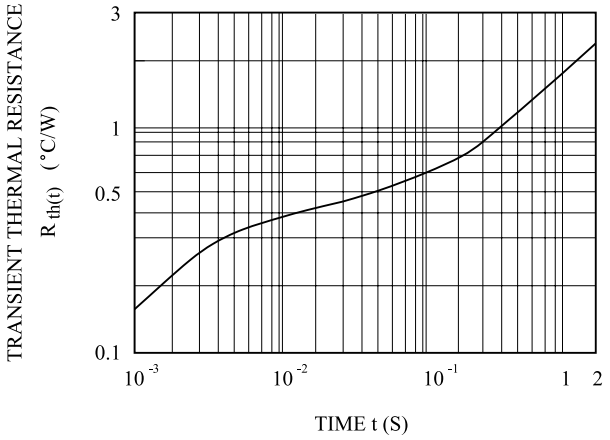
I_C - V_{BE}



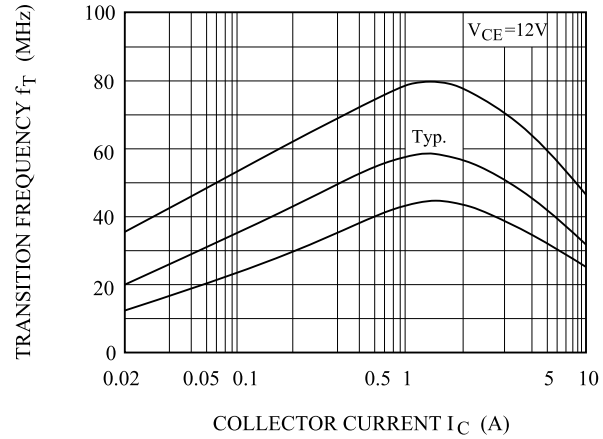
h_{FE} - I_C



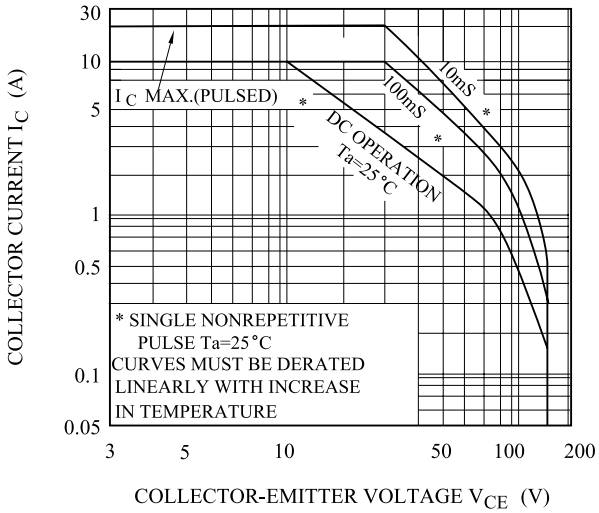
$R_{th(t)}$ - t



f_T - I_C



SAFE OPERATING AREA



Pc - Ta