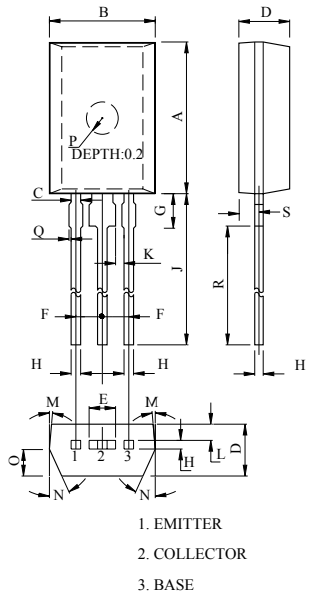
KTD1347

EPITAXIAL PLANAR NPN TRANSISTOR

VOLTAGE REGULATORS, RELAY DRIVERS
LAMP DRIVERS, ELECTRICAL EQUIPMENT

FEATURES

- Adoption of MBIT processes.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Large current capacity and wide ASO.
- Complementary to KTB985.



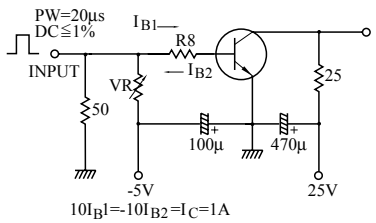
DIM	MILLIMETERS
A	7.20 MAX
B	5.20 MAX
C	0.60 MAX
D	2.50 MAX
E	1.15 MAX
F	1.27
G	1.70 MAX
H	0.55 MAX
J	14.00±0.50
K	0.35 MIN
L	0.75±0.10
M	4°
N	25°
O	1.25
P	Φ1.50
Q	0.10 MAX
R	12.50±0.50
S	1.00

TO-92L

MAXIMUM RATING (Ta=25℃)

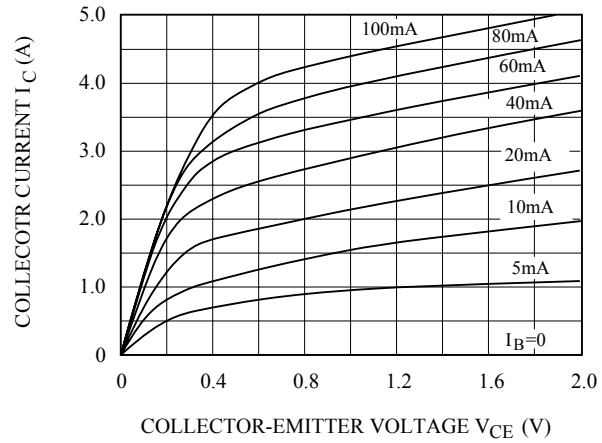
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Vollector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	3	A
Collector Current (Pulse)	I_{CP}	6	A
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

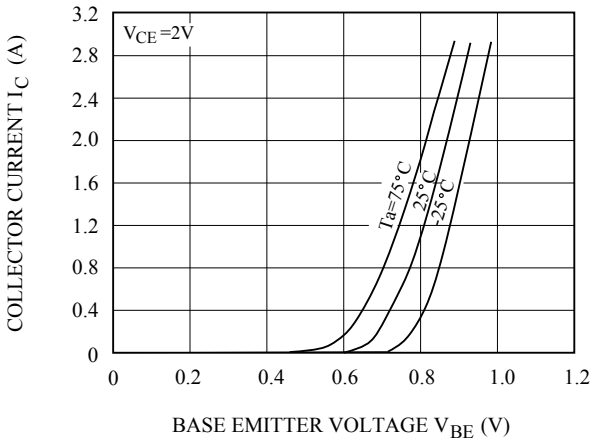
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Collector Cut-off Current		I_{CBO}	V_{CB}=40V, I_E=0	-	-	1	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=4V, I_C=0	-	-	1	μA
DC Current Gain		h_{FE} (1) (Note)	V_{CE}=2V, I_C=100㎃	100	-	400	
		h_{FE} (2)	V_{CE}=2V, I_C=3A	35	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=2A, I_B=100㎃	-	0.19	0.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	I_C=2A, I_B=100㎃	-	0.94	1.2	V
Transition Frequency		f_T	V_{CE}=10V, I_C=50㎃	-	150	-	㎒
Collector Output Capacitance		C_{ob}	V_{CB}=10V, I_E=0, f=1㎒	-	25	-	pF
Switching Time	Turn-on Time	t_{on}		-	70	-	nS
	Storage Time	t_{stg}		-	650	-	
	Fall Time	t_f		-	35	-	

Note : h_{FE} (1) Classification A:100～200, B:140～280, C:200～400

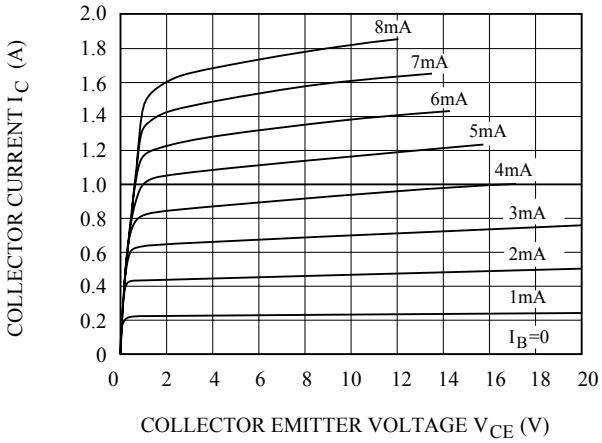
I_C - V_{CE}



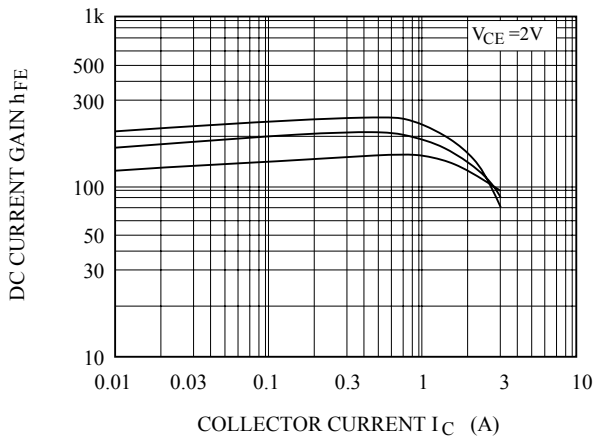
I_C - V_{BE}



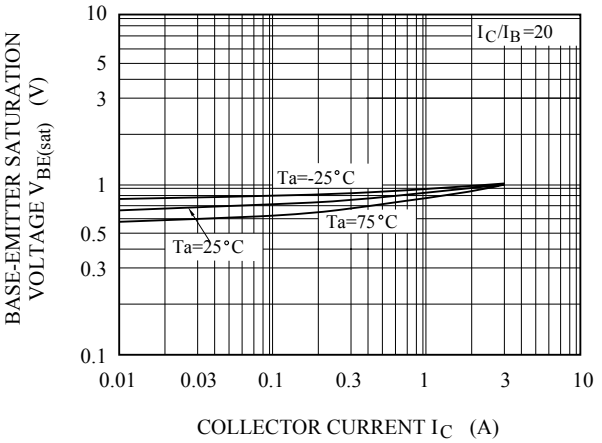
I_C - V_{CE}



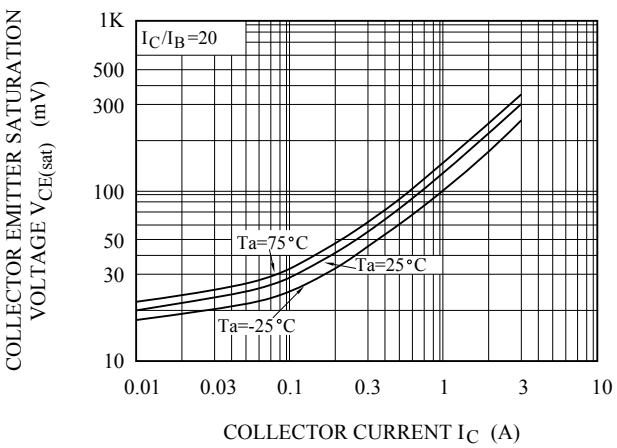
h_{FE} - I_C



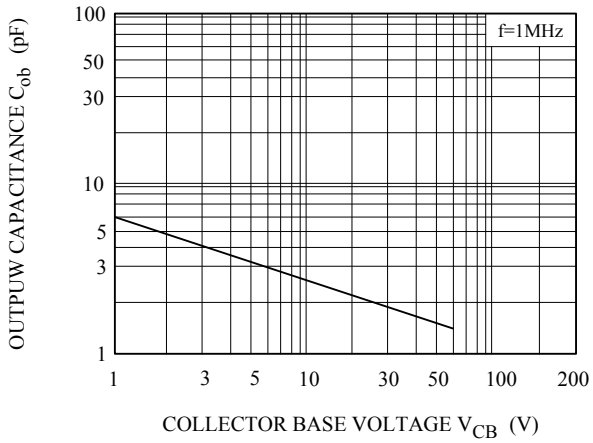
$V_{BE(sat)}$ - I_C



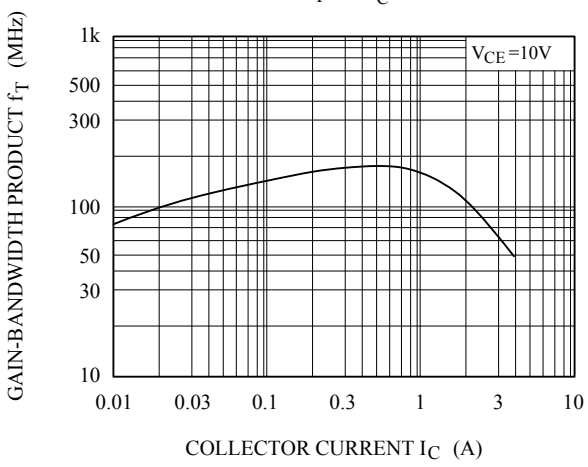
$V_{CE(sat)}$ - I_C



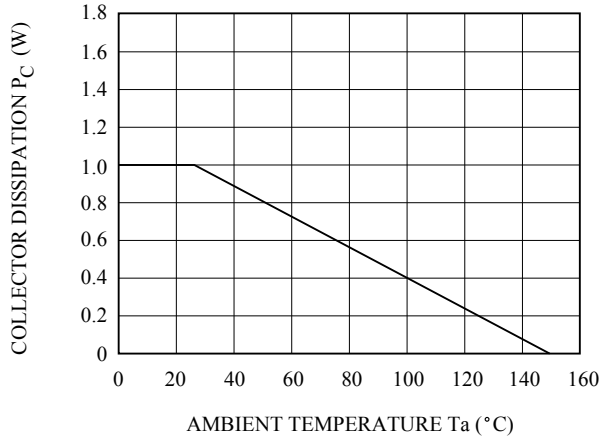
C_{ob} - V_{CB}



f_T - I_C



Pc - Ta



SAFE OPERATING AREA