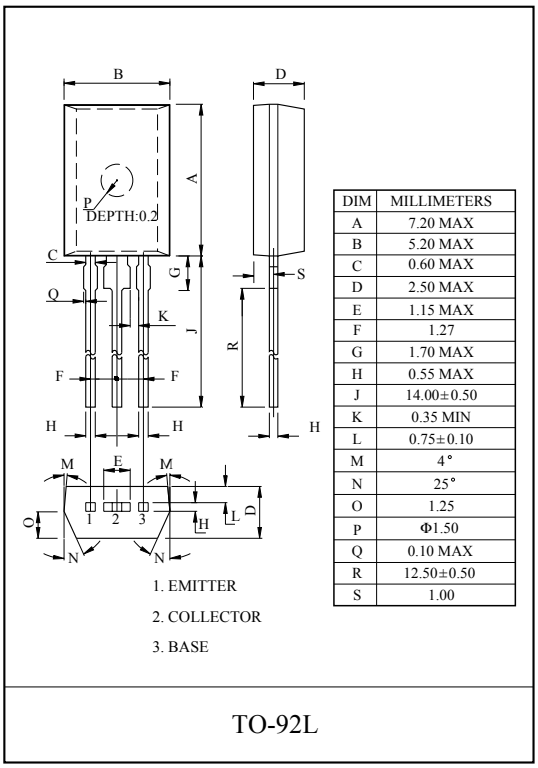
KTD2854

EPITAXIAL PLANAR NPN TRANSISTOR

MICRO MOTOR DRIVE, HAMMER DRIVE APPLICATIONS.
SWITCHING APPLICATIONS.
POWER AMPLIFIER APPLICATION.

FEATURES

- High DC Current Gain
  : h_{FE}=2000(Min.) (V_{CE}=2V, I_C=1A)
- Low Saturation Voltage
  : $V_{CE(sat)}$=1.5V(Max.) (I_C=1A, I_B=1mA)
- Complementary to KTB2234.



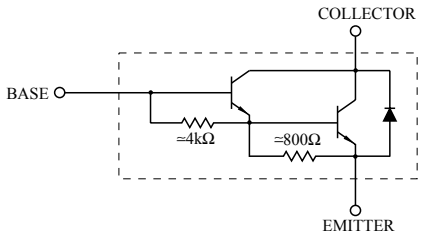
DIM	MILLIMETERS
A	7.20 MAX
B	5.20 MAX
C	0.60 MAX
D	2.50 MAX
E	1.15 MAX
F	1.27
G	1.70 MAX
H	0.55 MAX
J	14.00±0.50
K	0.35 MIN
L	0.75±0.10
M	4°
N	25°
O	1.25
P	Φ1.50
Q	0.10 MAX
R	12.50±0.50
S	1.00

TO-92L

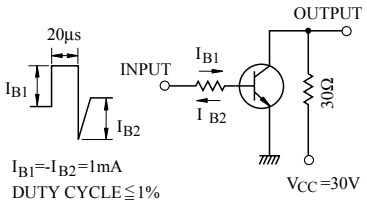
MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	100	V
Collector-Emitter Voltage		V_{CEO}	100	V
Emitter-Base Voltage		V_{EBO}	8	V
Collector Current	DC	I_C	2	A
	Pulse	I_{CP}	3	
Base Current		I_B	0.5	A
Collector Power Dissipation		P_C	1	W
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55～150	℃

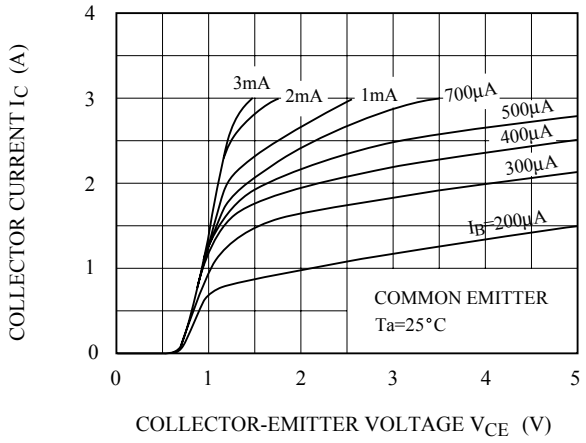
EQUIVALENT CIRCUIT



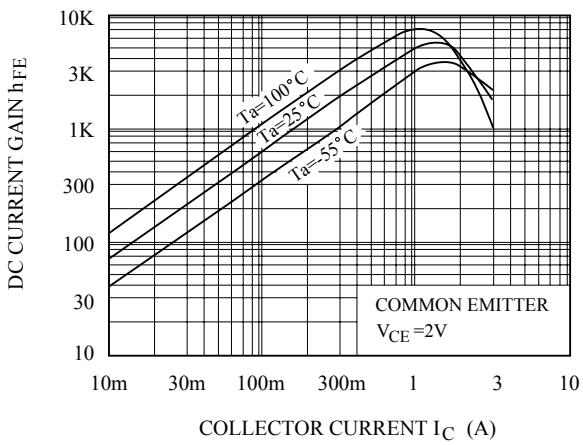
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=80V, I_E=0	-	-	10	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=8V, I_C=0	-	-	4	mA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C=10mA, I_B=0	100	-	-	V
DC Current Gain		h_{FE}	V_{CE}=2V, I_C=1A(Pulse)	2000	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=1A, I_B=1mA(Pulse)	-	-	1.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	I_C=1A, I_B=1mA(Pulse)	-	-	2.0	V
Transition Frequency		f_T	V_{CE}=2V, I_C=0.5A	-	100	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	20	-	pF
Switching Time	Turn On Time	t_{on}		-	0.4	-	μS
	Storage Time	t_{stg}		-	4.0	-	
	Fall Time	t_f		-	0.6	-	

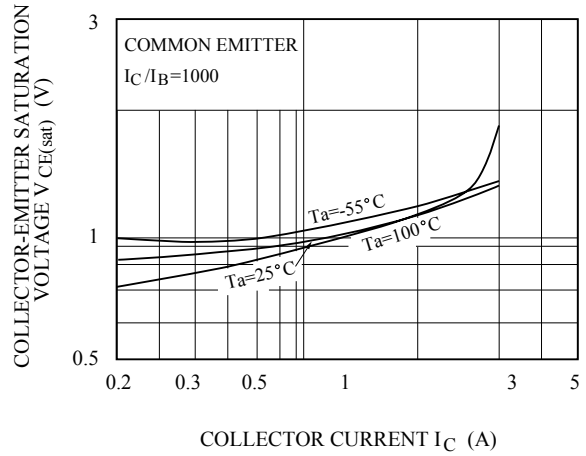
I_C - V_{CE}



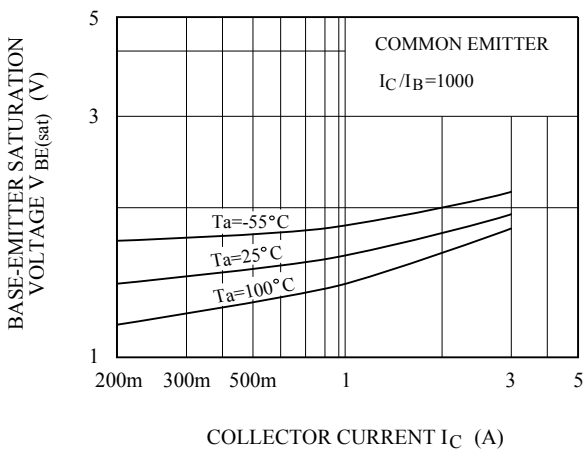
h_{FE} - I_C



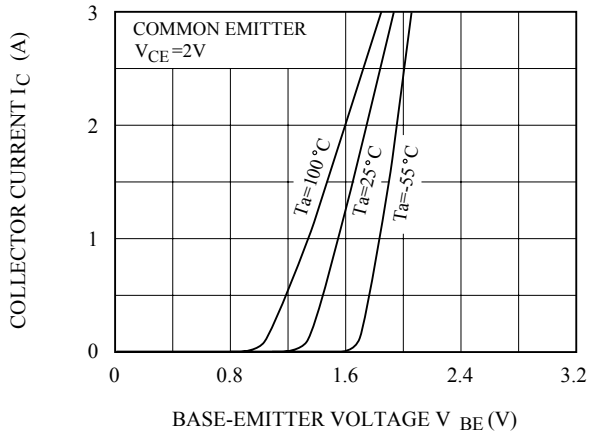
$V_{CE(sat)}$ - I_C



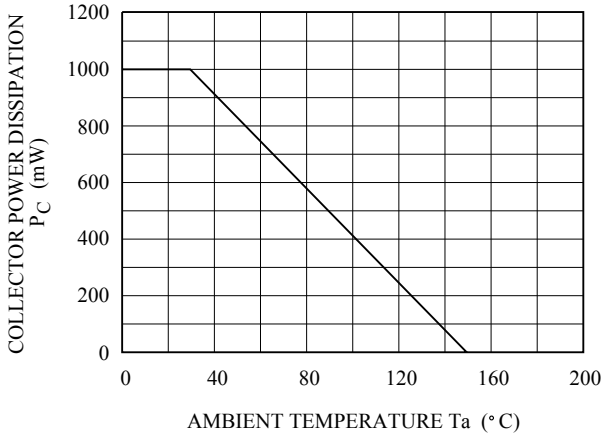
$V_{BE(sat)}$ - I_C



I_C - V_{BE}



Pc - Ta



SAFE OPERATING AREA