

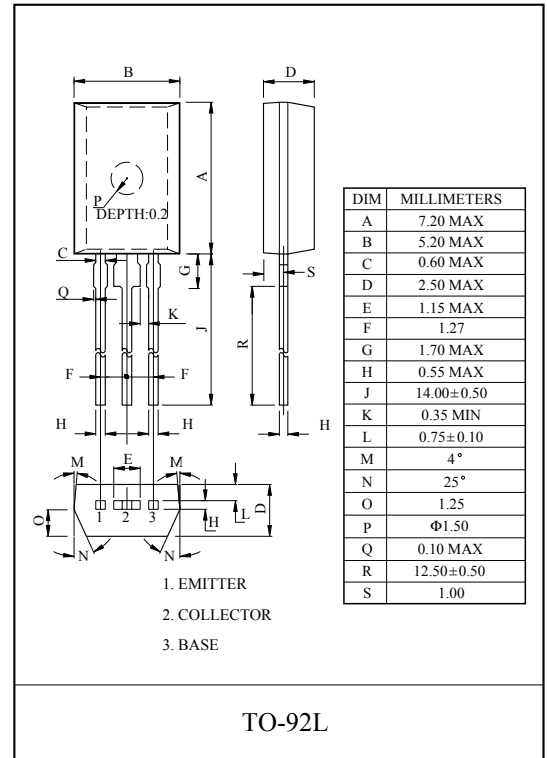
MICRO MOTOR DRIVE, HAMMER DRIVE APPLICATIONS.
SWITCHING APPLICATIONS.
POWER AMPLIFIER APPLICATION.

FEATURES

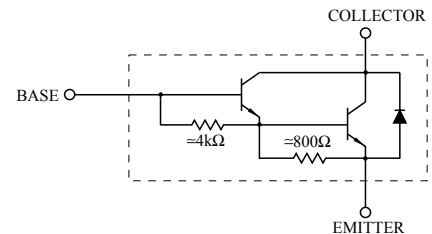
- High DC Current Gain
: $h_{FE}=2000(\text{Min.}) (V_{CE}=2V, I_C=1A)$
- Low Saturation Voltage
: $V_{CE(\text{sat})}=1.5V(\text{Max.}) (I_C=1A, I_B=1mA)$
- Complementary to KTB2234.

MAXIMUM RATINGS (Ta=25°C)

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
	Pulse	I_{CP}	3
Base Current	I_B	0.5	A
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C



EQUIVALENT CIRCUIT



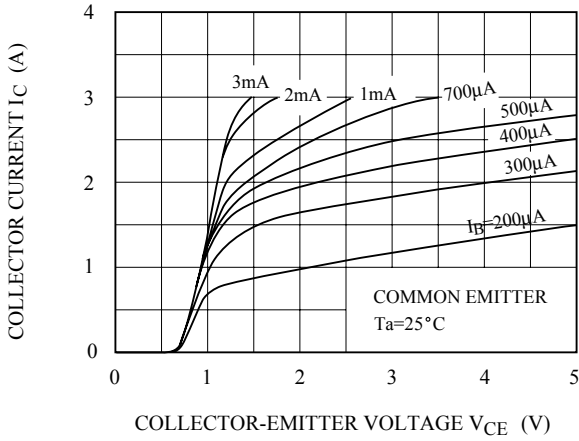
ELECTRICAL CHARACTERISTICS (Ta=25°C)

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}	$V_{CE}=2V, I_C=1A(\text{Pulse})$	2000	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(\text{sat})}$	$I_C=1A, I_B=1mA(\text{Pulse})$	-	-	1.5	V
Base-Emitter Saturation Voltage	$V_{BE(\text{sat})}$	$I_C=1A, I_B=1mA(\text{Pulse})$	-	-	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	-	

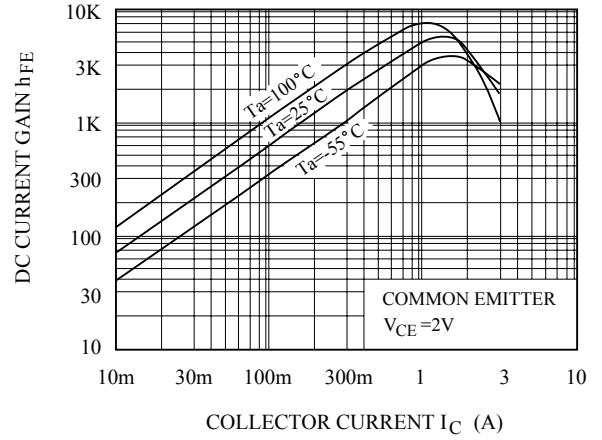
$I_{B1} = -I_{B2} = 1mA$
DUTY CYCLE $\leq 1\%$

KTD2854

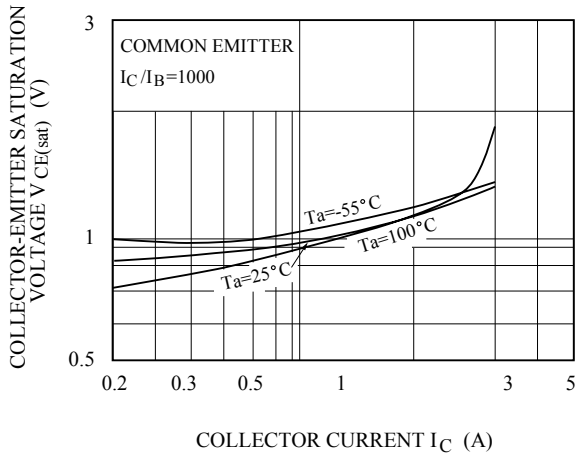
$I_C - V_{CE}$



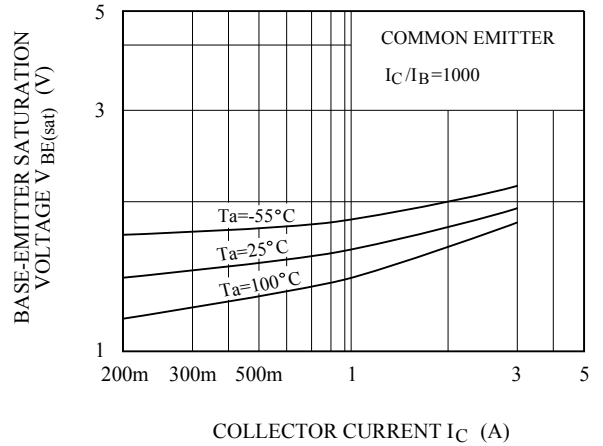
$h_{FE} - I_C$



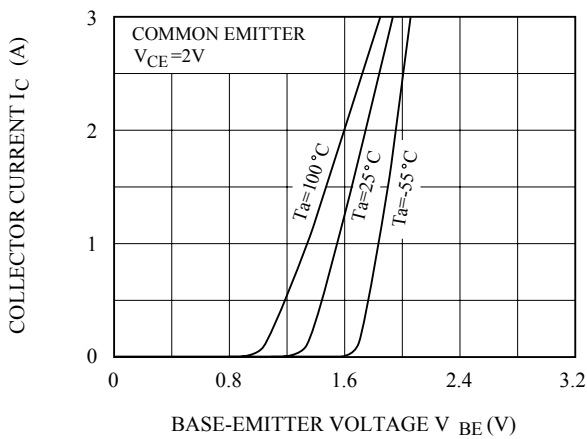
$V_{CE(sat)} - I_C$



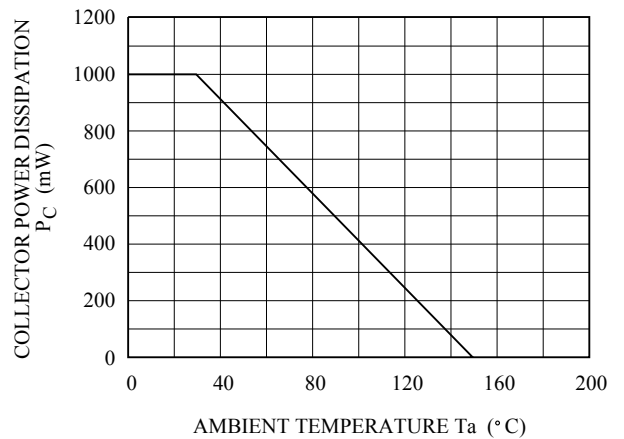
$V_{BE(sat)} - I_C$



$I_C - V_{BE}$



$P_C - T_a$



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SAFE OPERATING AREA

