

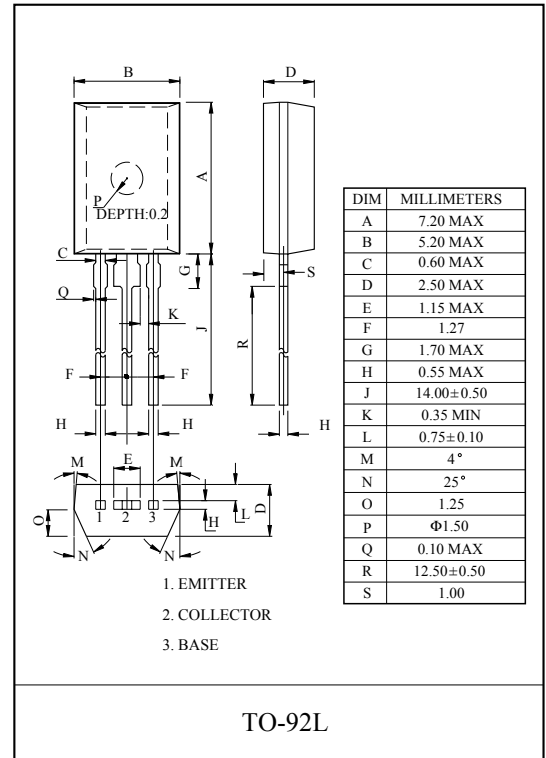
MICRO MOTOR DRIVE, HAMMER DRIVE APPLICATIONS.  
SWITCHING APPLICATIONS.  
POWER AMPLIFIER APPLICATION.

### FEATURES

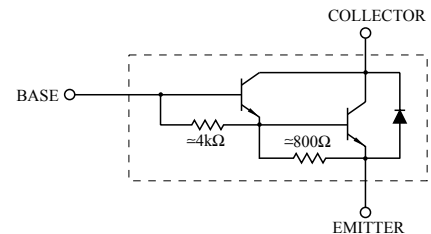
- High DC Current Gain  
:  $h_{FE}=2000(\text{Min.}) (V_{CE}=2V, I_C=1A)$
- Low Saturation Voltage  
:  $V_{CE(\text{sat})}=1.5V(\text{Max.}) (I_C=1A, I_B=1mA)$
- Complementary to KTB2234.

### 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



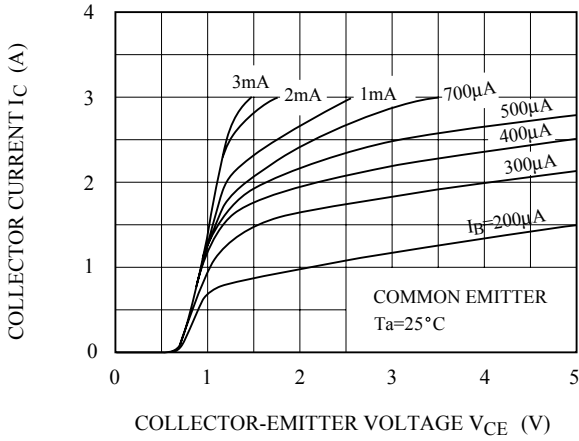
### ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=80V, I_E=0$	-	-	10	$\mu A$
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	-	$\mu S$
	Storage Time	$t_{stg}$	-	4.0	-	
	Fall Time	$t_f$	-	0.6	-	

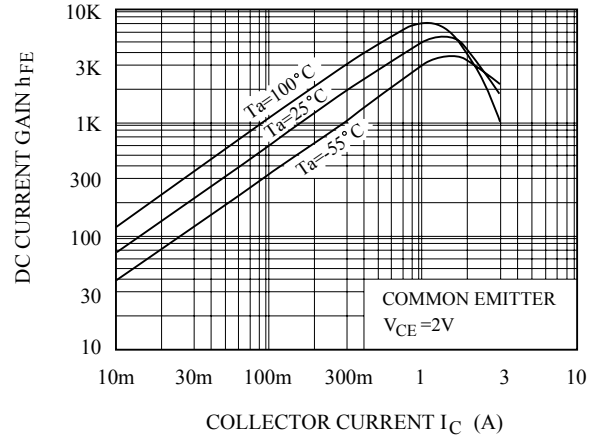
$I_{B1} = -I_{B2} = 1mA$   
DUTY CYCLE  $\leq 1\%$   
 $V_{CC} = 30V$

# KTD2854

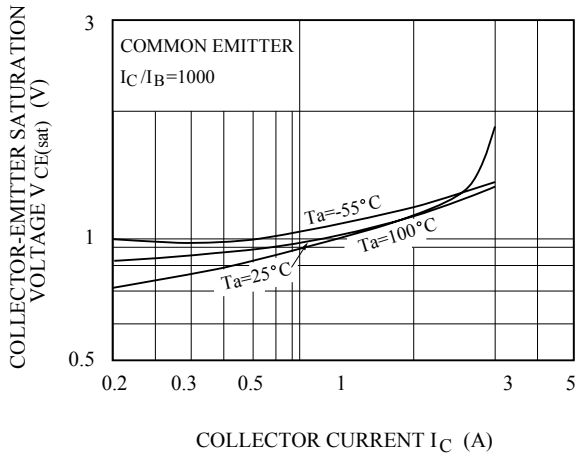
$I_C - V_{CE}$



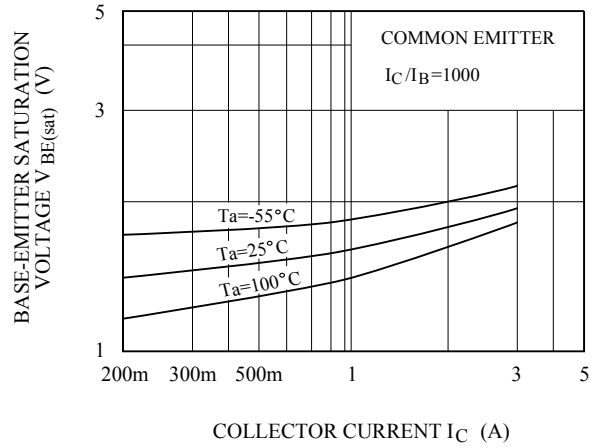
$h_{FE} - I_C$



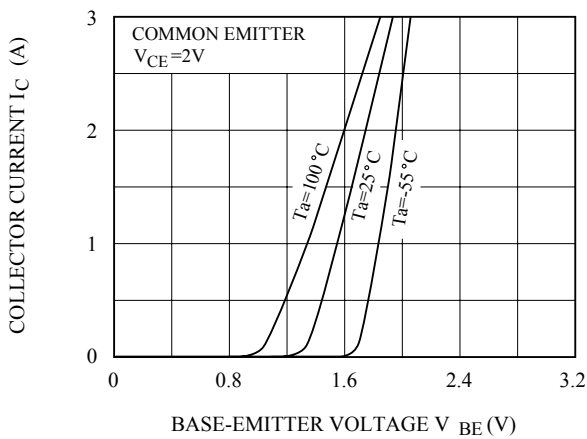
$V_{CE(sat)} - I_C$



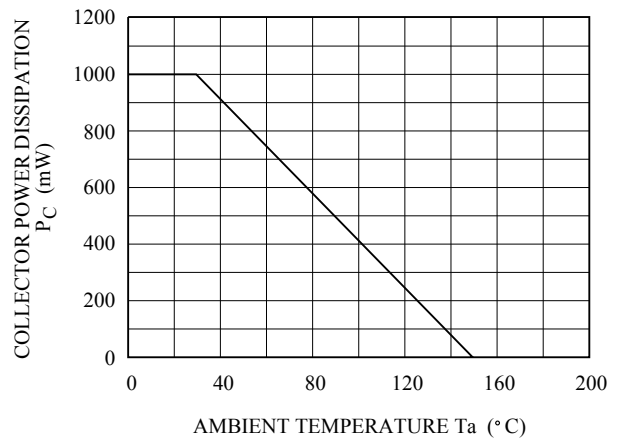
$V_{BE(sat)} - I_C$



$I_C - V_{BE}$



$P_C - T_a$



# KTD2854

## SAFE OPERATING AREA

