

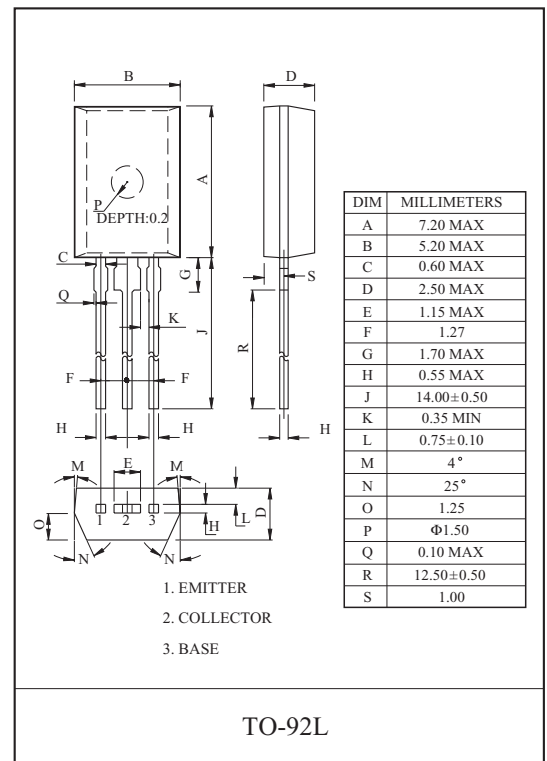
MICRO MOTOR DRIVE, HAMMER DRIVE APPLICATIONS.
SWITCHING APPLICATIONS.
POWER AMPLIFIER APPLICATION.

FEATURES

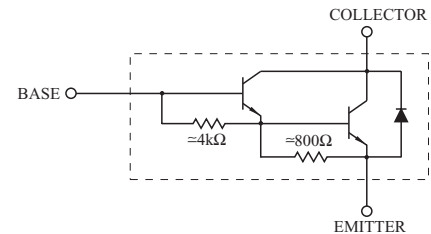
- High DC Current Gain
: $h_{FE}=2000(\text{Min.}) (V_{CE}=2V, I_C=1A)$
- Low Saturation Voltage
: $V_{CE(\text{sat})}=1.5V(\text{Max.}) (I_C=1A, I_B=1mA)$
- Complementary to KTB2234.

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	A
	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



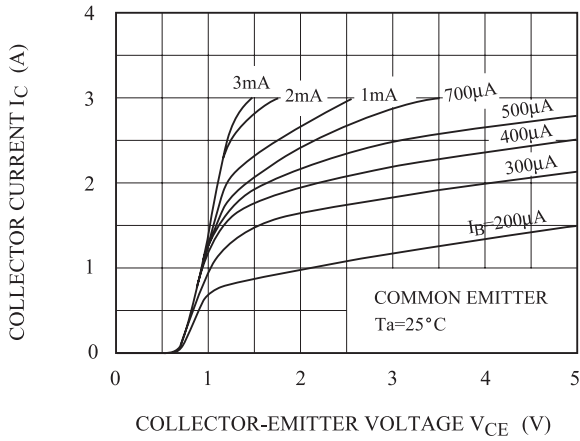
EQUIVALENT CIRCUIT



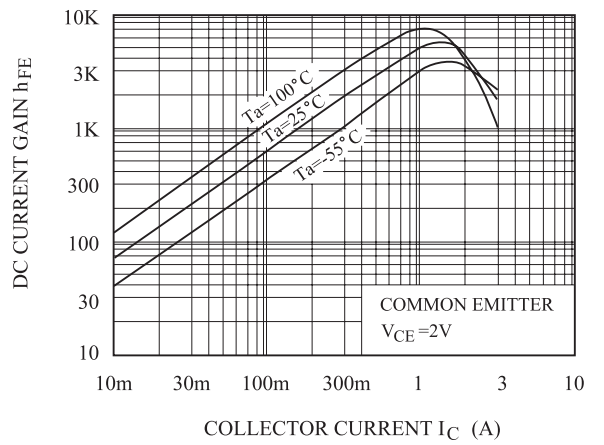
ELECTRICAL CHARACTERISTICS (Ta=25 °C)

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}	<p>$I_{B1}=I_{B2}=1mA$ DUTY CYCLE $\leq 1\%$ $V_{CC}=30V$</p>	-	0.4	-	μs
	Storage Time	t_{stg}		-	4.0	-	
	Fall Time	t_f		-	0.6	-	

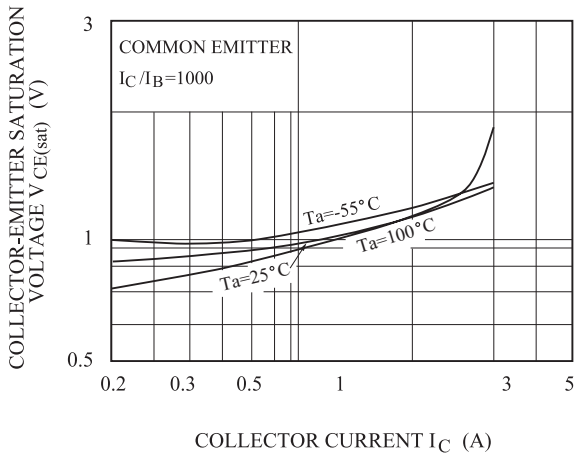
$I_C - V_{CE}$



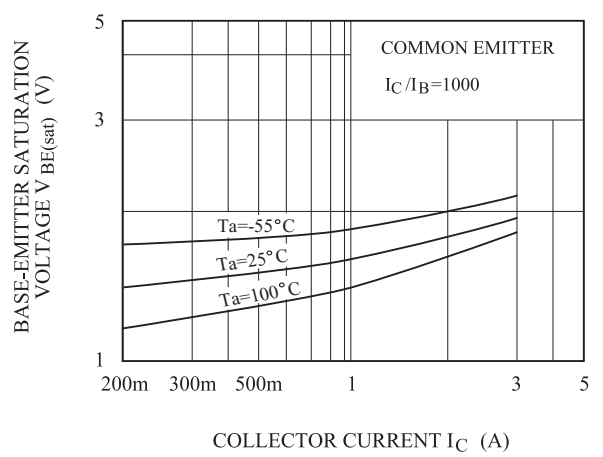
$h_{FE} - I_C$



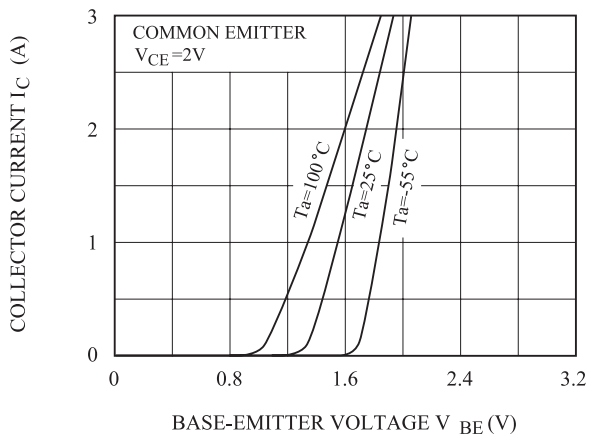
$V_{CE(sat)} - I_C$



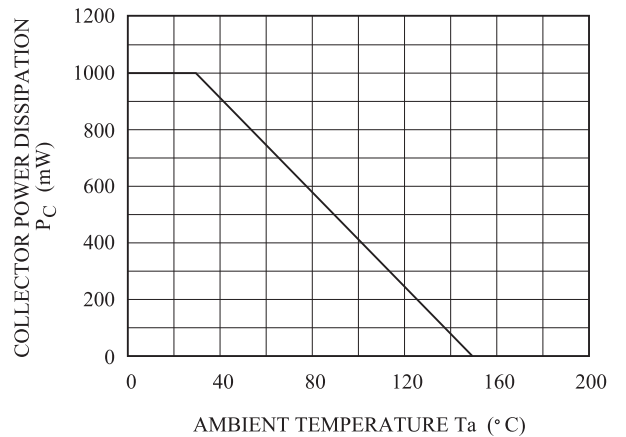
$V_{BE(sat)} - I_C$



$I_C - V_{BE}$



$P_c - T_a$



KTD2854

SAFE OPERATING AREA

