

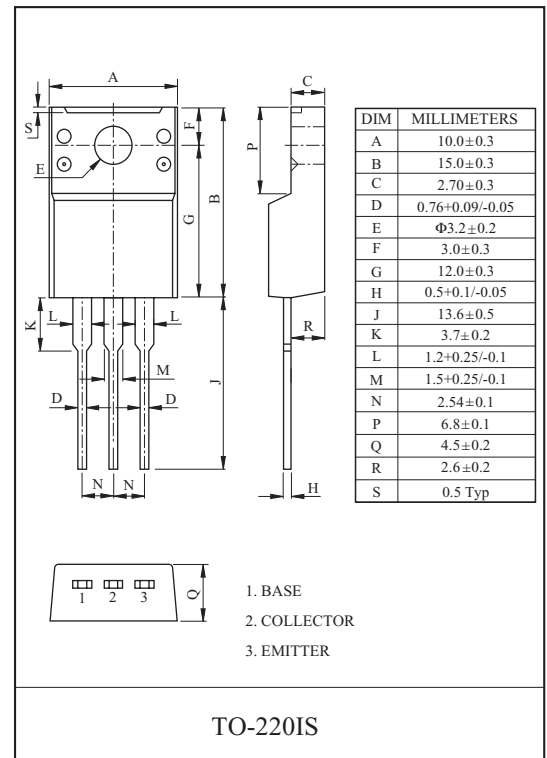
**HIGH CURRENT SWITCHING APPLICATIONS.
POWER AMPLIFIER APPLICATIONS.**

FEATURES

- High Collector Current : $I_C = -7A$.
- Low Collector-Emitter Saturation Voltage.
: $V_{CE(sat)} = -0.5V(\text{Max.})$ at $I_C = -4A$.
- Suffix U : Qualified to AEC-Q101.
ex) KTB1370-O-U/PU

MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-100	V
Collector-Emitter Voltage	V_{CEO}	-80	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-7	A
Base Current	I_B	-1	A
Collector Power Dissipation (Tc=25 °C)	P_C	30	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	



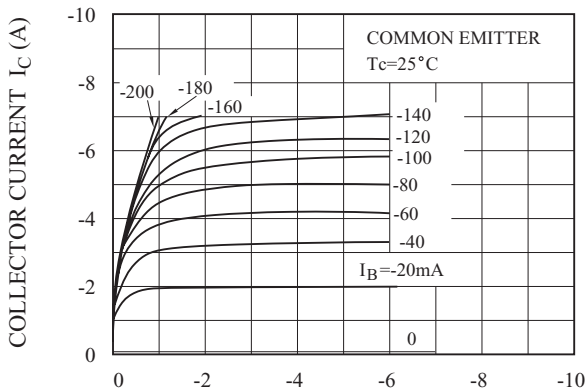
ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -100V, I_E = 0$	-	-	-5	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V, I_C = 0$	-	-	-5	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -50mA, I_B = 0$	-80	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = -1V, I_C = -1A$	70	-	240	
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -4A$	30	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -4A, I_B = -0.4A$	-	-0.3	-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -4A, I_B = -0.4A$	-	-0.9	-1.4	V
Transition Frequency	f_T	$V_{CE} = -4V, I_C = -1A$	-	10	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	250	-	pF
Switching Time	Turn-On Time	t_{on}	-	0.4	-	μS
	Storage Time	t_{stg}	-	2.5	-	
	Fall Time	t_f	-	0.5	-	

$-I_{B1} = I_{B2} = 0.3A$
DUTY CYCLE $\leq 1\%$
 $V_{CC} = -30V$

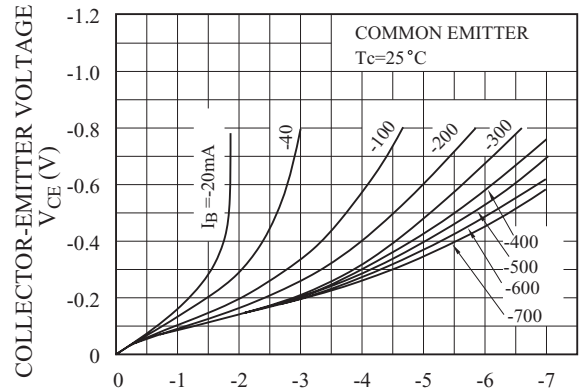
Note : $h_{FE(1)}$ Classification O:70 140 , Y:120 240

$I_C - V_{CE}$



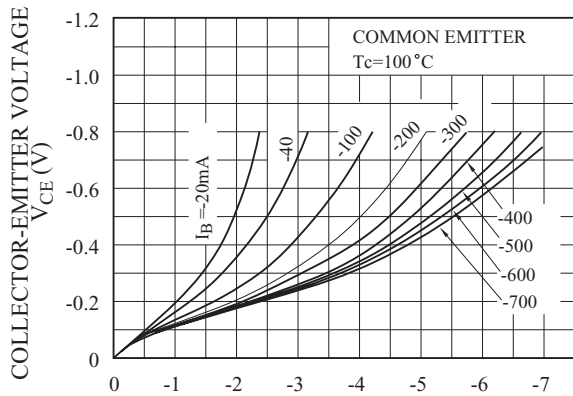
COLLECTOR-Emitter VOLTAGE V_{CE} (V)

$V_{CE} - I_C$



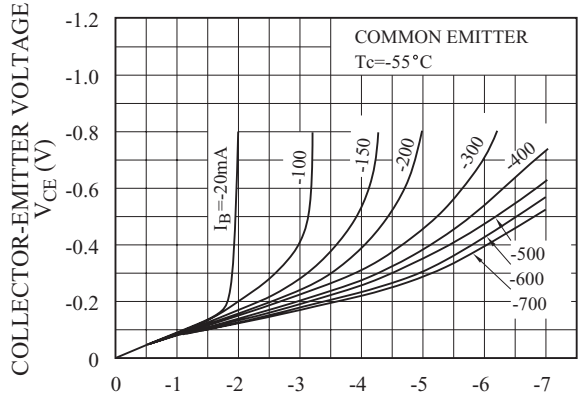
COLLECTOR CURRENT I_C (A)

$V_{CE} - I_C$



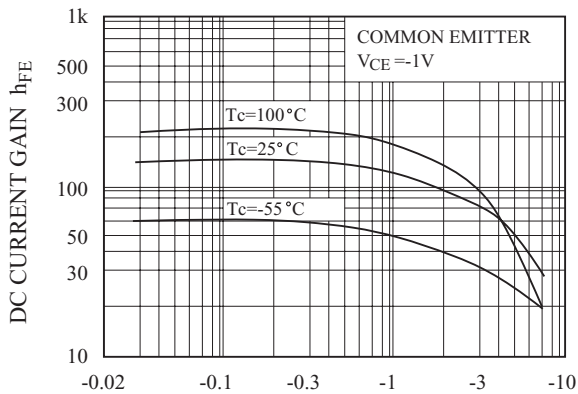
COLLECTOR CURRENT I_C (A)

$V_{CE} - I_C$



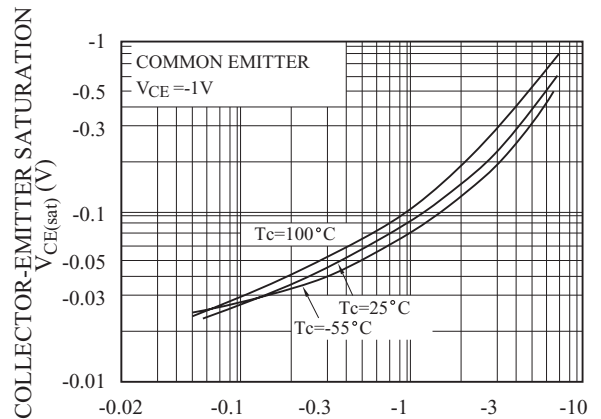
COLLECTOR CURRENT I_C (A)

$h_{FE} - I_C$



COLLECTOR CURRENT I_C (A)

$V_{CE(sat)} - I_C$



COLLECTOR CURRENT I_C (A)

