

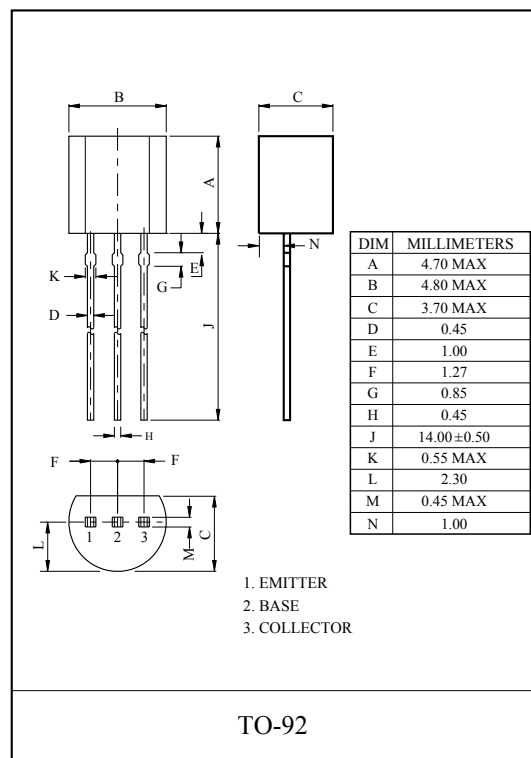
GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES

- Excellent h_{FE} Linearity.
: $h_{FE}(I_C=0.1\text{mA})/h_{FE}(I_C=2\text{mA})=0.95(\text{Typ.})$
- Low Noise : $NF=1\text{dB}(\text{Typ.})$. at $f=1\text{kHz}$
- Complementary to KTA733B(O, Y, GR class).

MAXIMUM RATING ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ\text{C}$

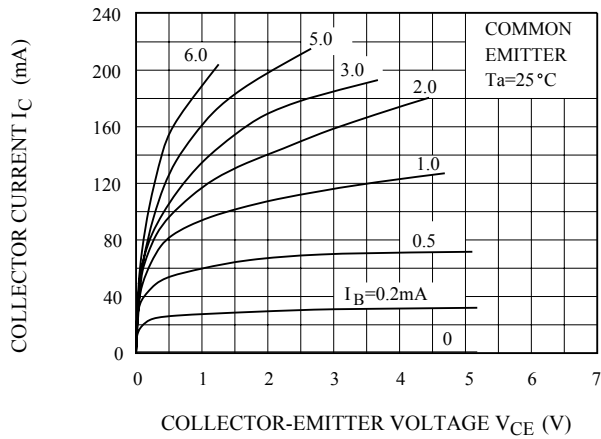
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}$, $I_E=0$	60	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$, $I_B=0$	50	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}$, $I_C=0$	5	-	-	V
Collector Cut-off Current	I_{CBO}	$V_{CB}=60\text{V}$, $I_E=0$	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5\text{V}$, $I_C=0$	-	-	0.1	μA
DC Current Gain	$h_{FE}(\text{Note})$	$V_{CE}=6\text{V}$, $I_C=2\text{mA}$	70	-	700	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{mA}$, $I_B=10\text{mA}$	-	0.1	0.25	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100\text{mA}$, $I_B=10\text{mA}$	-	-	1.0	V
Transition Frequency	f_T	$V_{CE}=10\text{V}$, $I_C=10\text{mA}$	-	300	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$	-	2.0	3.5	pF
Noise Figure	NF	$V_{CE}=6\text{V}$, $I_C=0.1\text{mA}$, $R_g=10\text{k}\Omega$, $f=1\text{kHz}$	-	1.0	10	dB

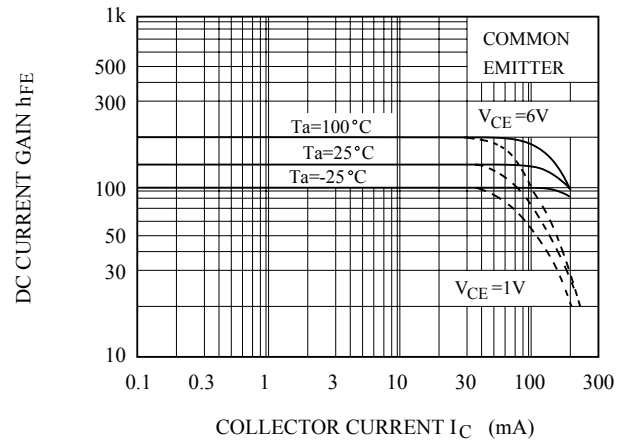
Note : h_{FE} Classification O:70~140, Y:120~240, GR:200~400, BL:350~700

KTC945B

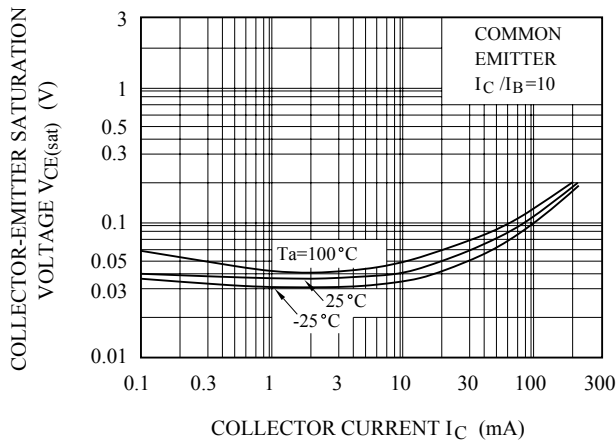
$I_C - V_{CE}$



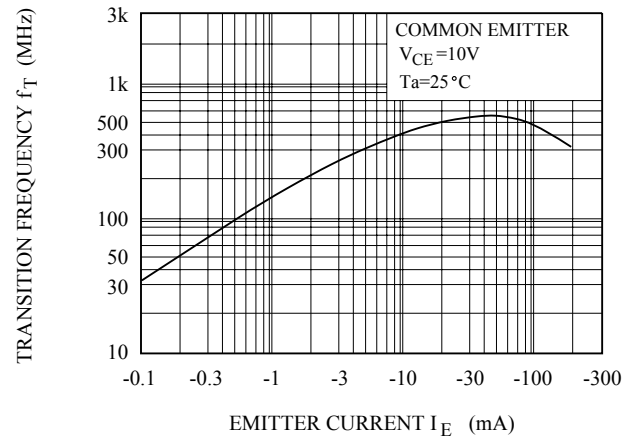
$h_{FE} - I_C$



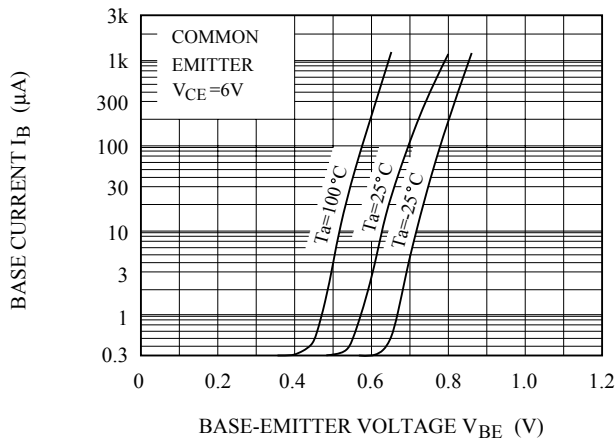
$V_{CE(sat)} - I_C$



$f_T - I_E$



$I_B - V_{BE}$



$P_C - T_a$

