

GENERAL PURPOSE APPLICATION.  
SWITCHING APPLICATION.

### FEATURES

- Excellent  $h_{FE}$  Linearity.  
:  $h_{FE}(I_C=0.1mA)/h_{FE}(I_C=2mA)=0.95(Typ.)$
- Low Noise :  $NF=1dB(Typ.)$  at  $f=1kHz$
- Complementary to KTA733.

### MAXIMUM RATING (Ta=25°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	°C
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C



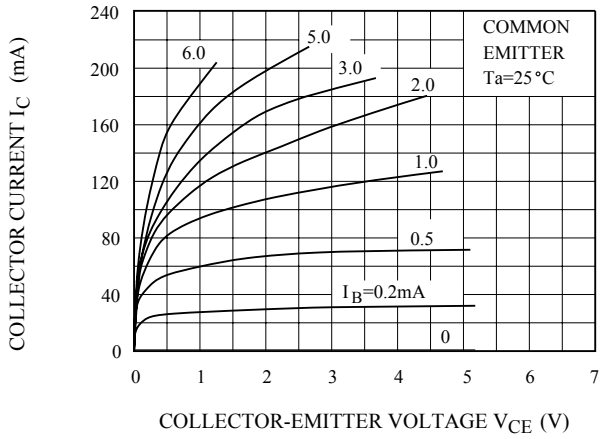
### ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	50	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5	-	-	V
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=60V, I_E=0$	-	-	0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	0.1	$\mu A$
DC Current Gain	$h_{FE}$ (Note)	$V_{CE}=6V, I_C=2mA$	90	-	600	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$	-	0.1	0.25	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA, I_B=10mA$	-	-	1.0	V
Transition Frequency	$f_T$	$V_{CE}=10V, I_C=10mA$	80	300	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	2.0	3.5	pF
Noise Figure	NF	$V_{CE}=6V, I_C=0.1mA, R_g=10k\Omega, f=1kHz$	-	1.0	10	dB

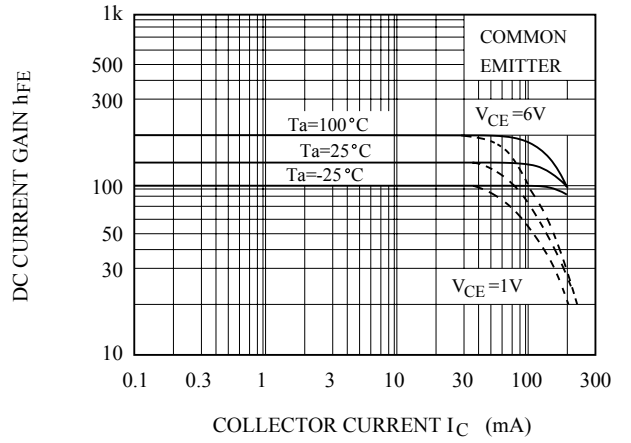
Note :  $h_{FE}$  Classification R:90 ~ 180, Q:135 ~ 270, P:200 ~ 400, K:300 ~ 600

# KTC945

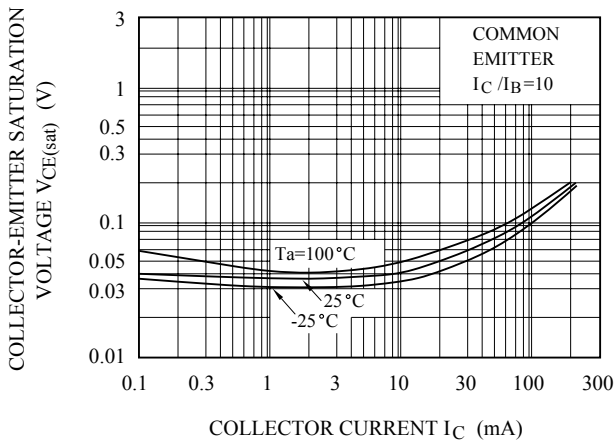
$I_C - V_{CE}$



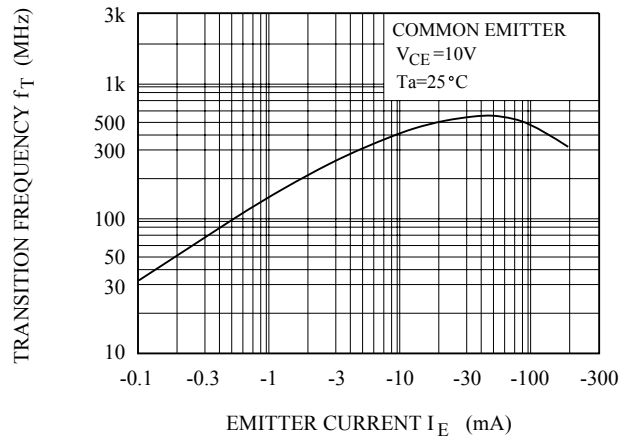
$h_{FE} - I_C$



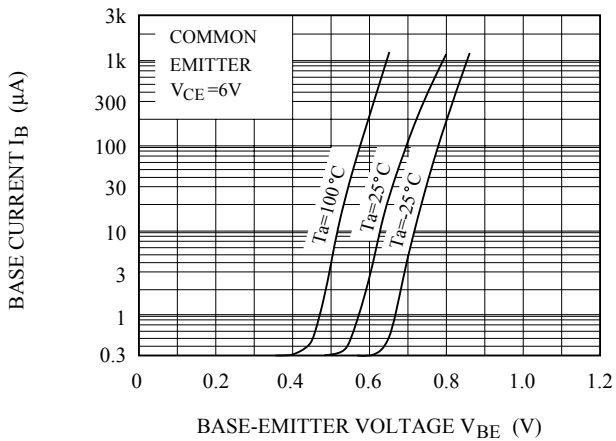
$V_{CE(sat)} - I_C$



$f_T - I_E$



$I_B - V_{BE}$



$P_c - T_a$

