

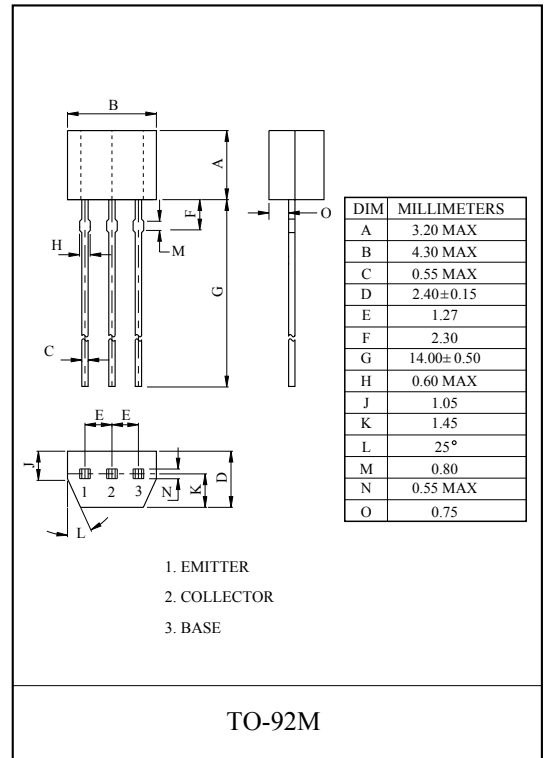
GENERAL PURPOSE APPLICATION  
SWITCHING APPLICATION.

### FEATURES

- High DC Current Gain :  $h_{FE}=70\sim700$ .
- Excellent  $h_{FE}$  Linearity  
:  $h_{FE}(0.1mA)/h_{FE}(2mA)=0.95(\text{Typ.})$ .
- Low Noise :  $NF=1dB(\text{Typ.}), 10dB(\text{Max.})$ .
- Complementary to KTA1267.

### MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	50	V
Collector-Emitter Voltage	$V_{CEO}$	50	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	150	mA
Emitter Current	$I_E$	-150	mA
Collector Power Dissipation	$P_C$	400	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C



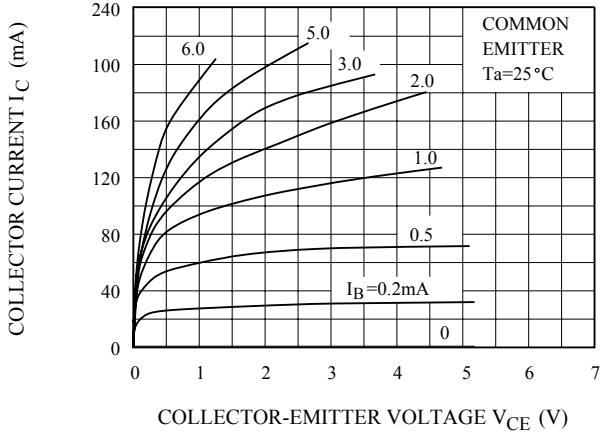
### ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=50V, I_E=0$	-	-	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)	$V_{CE}=6V, I_C=2mA$	70	-	700	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$	-	0.1	0.25	V
Transition Frequency	$f_T$	$V_{CE}=10V, I_C=1mA$	80	-	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	2.0	3.5	pF
Noise Figure	NF	$V_{CE}=6V, I_C=0.1mA, f=1kHz, R_g=10k\Omega$	-	1.0	10	dB

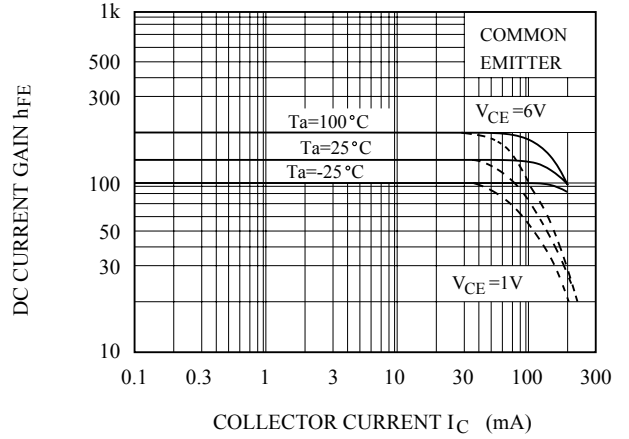
Note :  $h_{FE}$  Classification O:70 ~ 140 , Y:120 ~ 240 , GR:200 ~ 400, BL:300~700.

# KTC3199

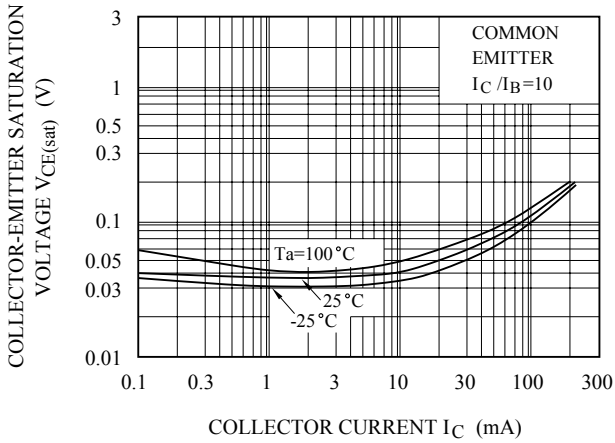
$I_C - V_{CE}$



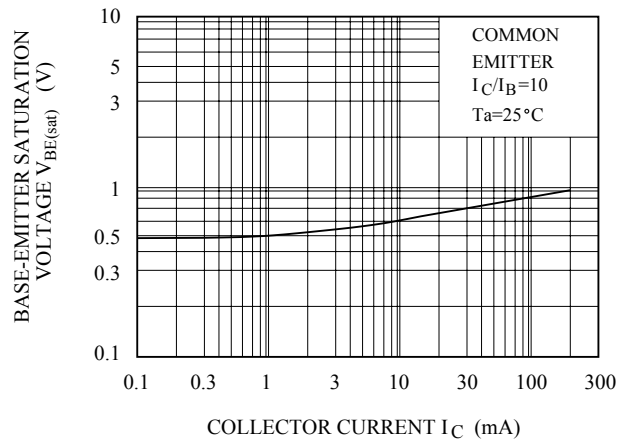
$h_{FE} - I_C$



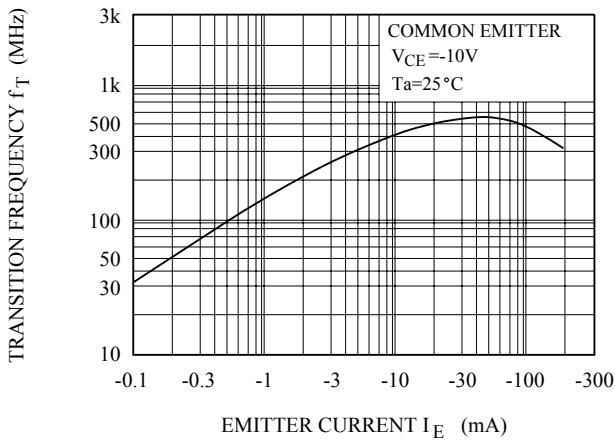
$V_{CE(sat)} - I_C$



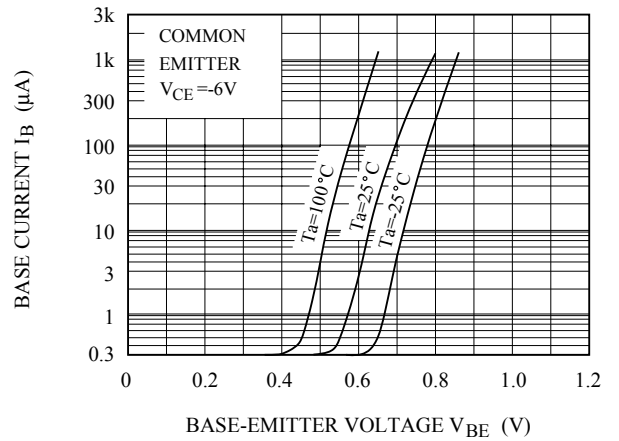
$V_{BE(sat)} - I_C$



$f_T - I_E$



$I_B - V_{BE}$



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