

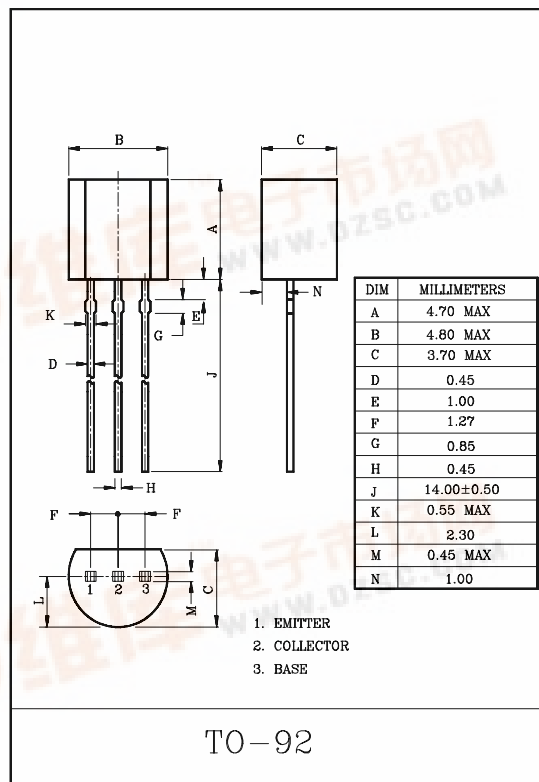
GENERAL PURPOSE APPLICATION.  
SWITCHING APPLICATION.

FEATURES

- Excellent  $h_{FE}$  Linearity  
:  $h_{FE(2)}=100(\text{Typ.})$  at  $V_{CE}=6V, I_C=150\text{mA}$ .  
:  $h_{FE(I_C=0.1\text{mA})}/h_{FE(I_C=2\text{mA})}=0.95(\text{Typ.})$
- Low Noise :  $NF=1\text{dB}(\text{Typ.})$  at  $f=1\text{kHz}$ .
- Complementary to KTA1266 (O,Y,GR class).

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

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
Base Current	$I_B$	50	mA
Collector Power Dissipation	$P_C$	625	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ\text{C}$



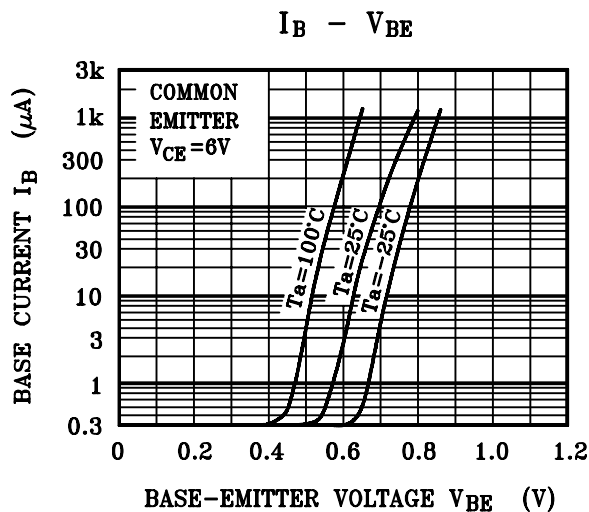
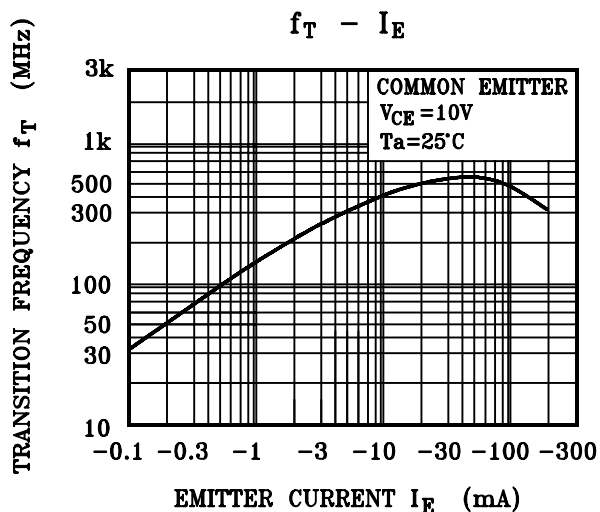
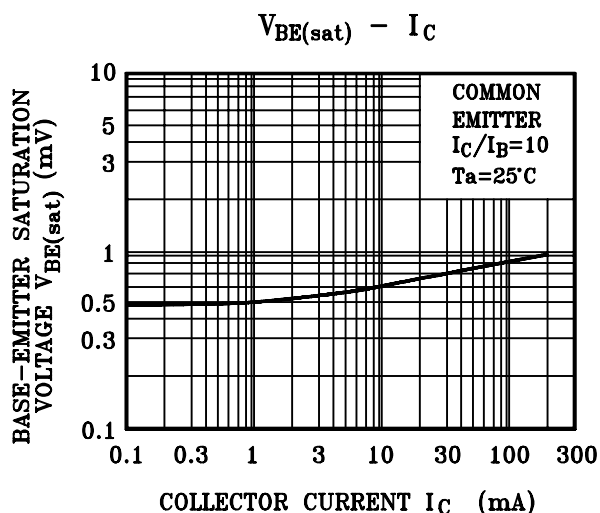
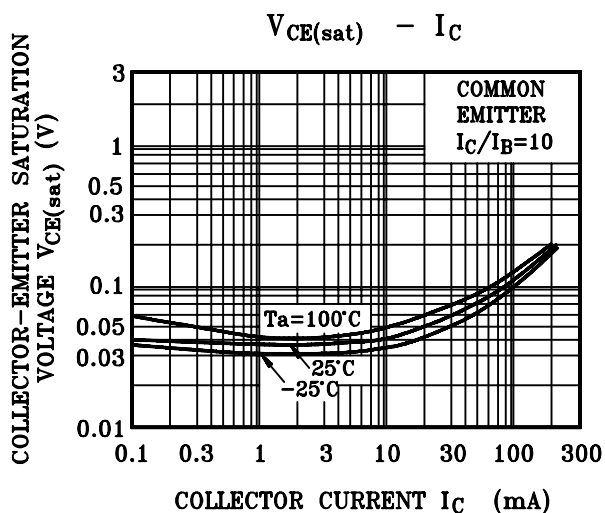
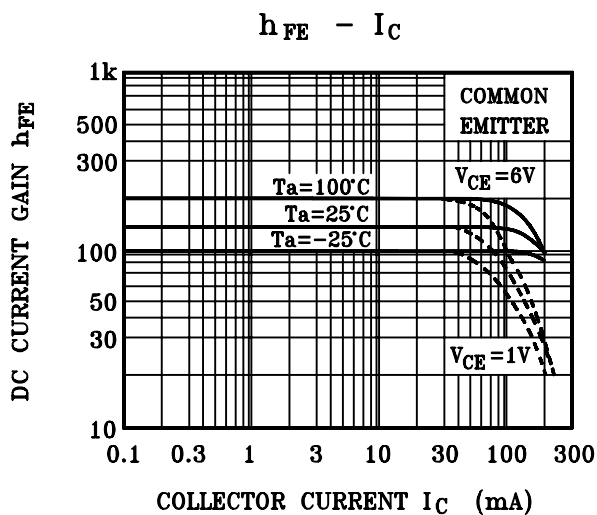
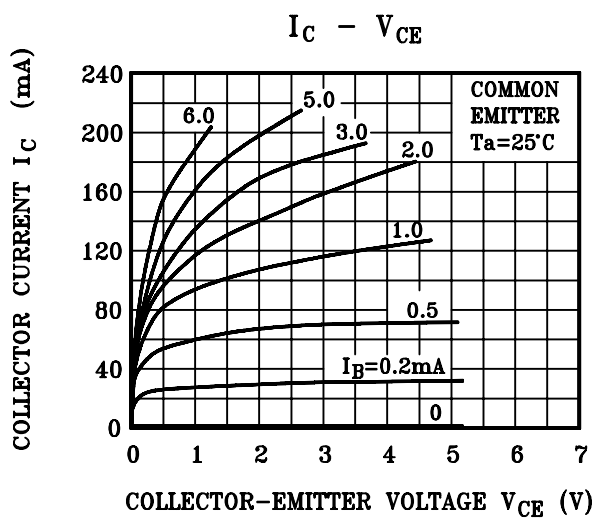
ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=60V, I_E=0$	-	-	0.1	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	0.1	$\mu\text{A}$
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=6V, I_C=2\text{mA}$	70	-	700	
	$h_{FE(2)}$	$V_{CE}=6V, I_C=150\text{mA}$	25	100	-	
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	$f_T$	$V_{CE}=10V, I_E=-1\text{mA}$	80	-	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1\text{MHz}$	-	2.0	3.5	pF
Base Intrinsic Resistance	$r_{bb'}$	$V_{CB}=10V, I_C=-1\text{mA}, f=30\text{MHz}$	-	50	-	$\Omega$
Noise Figure	NF	$V_{CE}=6V, I_C=0.1\text{mA}, R_g=10k\Omega, f=1\text{kHz}$	-	1.0	10	dB

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

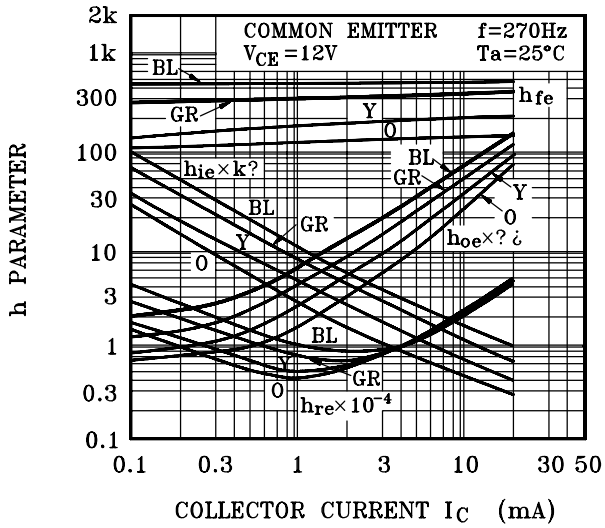


# KTC3198

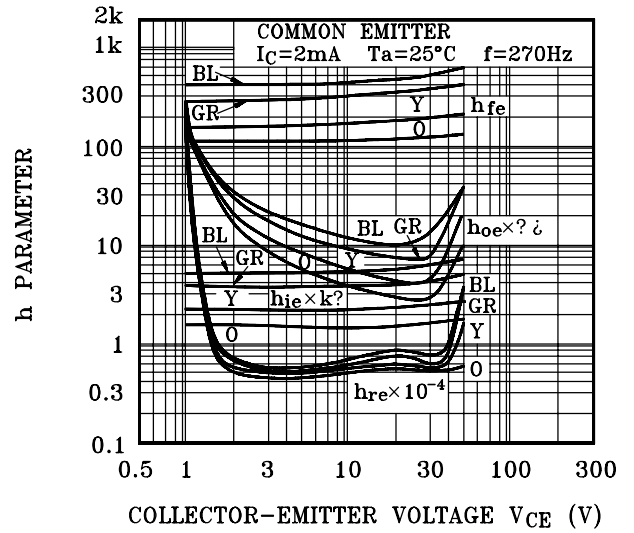


# KTC3198

h PARAMETER -  $I_C$



h PARAMETER -  $V_{CE}$



$P_C - T_a$

