

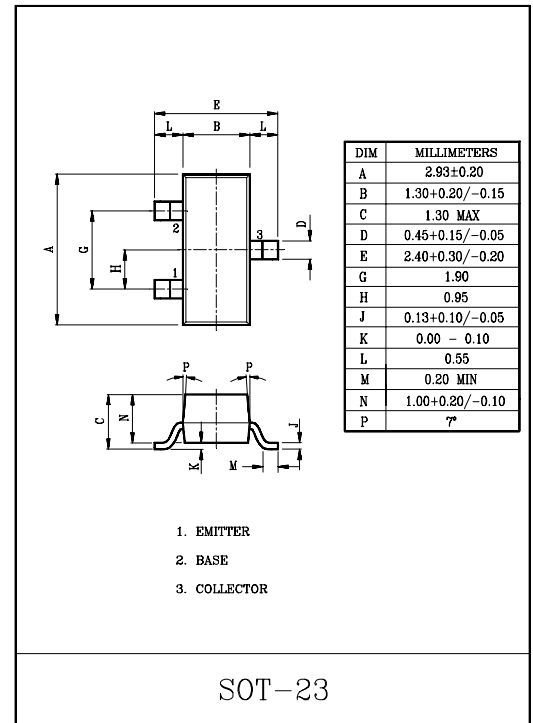
### LOW NOISE AMPLIFIER APPLICATION.

### FEATURES

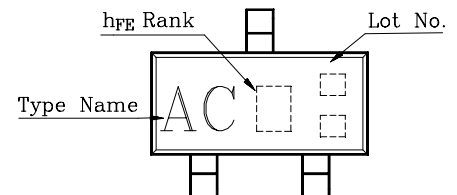
- High Voltage :  $V_{CEO} = -120V$ .
- Excellent  $h_{FE}$  Linearity  
:  $h_{FE}(0.1mA)/h_{FE}(2mA) = 0.95(Typ.)$ .
- High  $h_{FE}$ :  $h_{FE} = 200 \sim 700$ .
- Low Noise :  $NF = 1dB(Typ.)$ ,  $10dB(Max.)$ .
- Complementary to KTC3911.

### MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-120	V
Collector-Emitter Voltage	$V_{CEO}$	-120	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-100	mA
Base Current	$I_B$	-20	mA
Collector Power Dissipation	$P_C$	150	mW
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55 ~ 150	$^\circ C$



### Marking

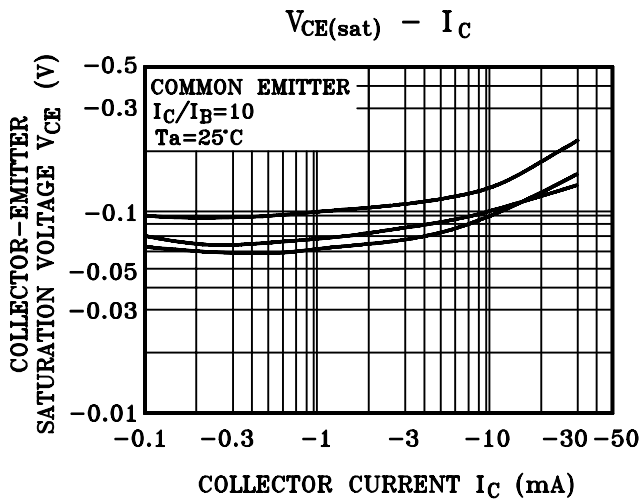
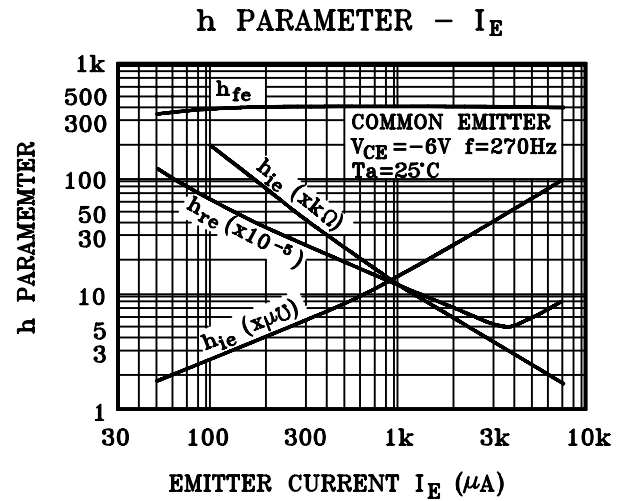
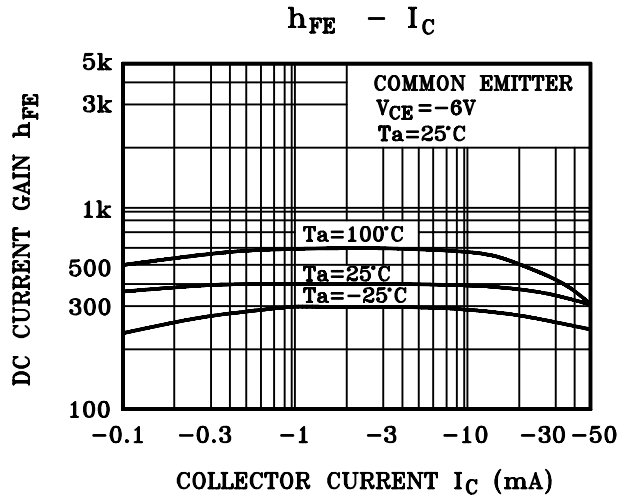
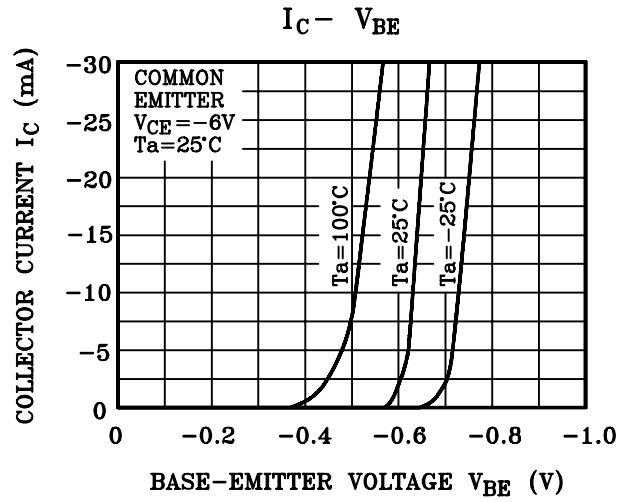
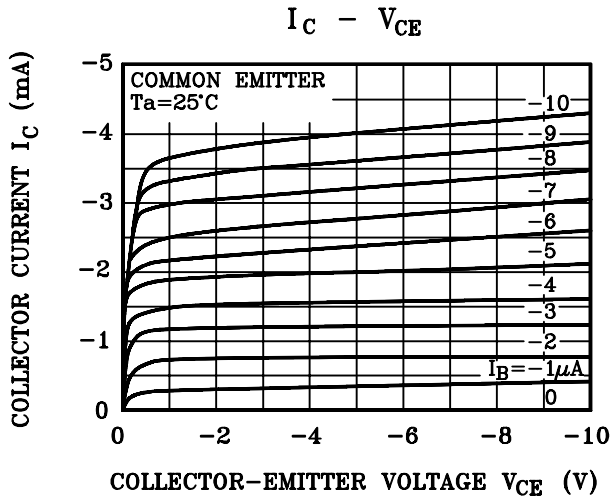


### ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

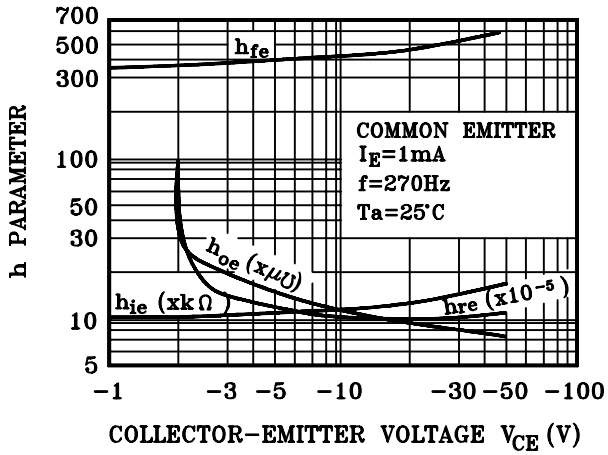
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -120V, I_E = 0$	-	-	-0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$	-	-	-0.1	$\mu A$
DC Current Gain	$h_{FE}$ (Note)	$V_{CE} = -6V, I_C = -2mA$	200	-	700	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -1mA$	-	-	-0.3	V
Transition Frequency	$f_T$	$V_{CE} = -6V, I_C = -1mA$	-	100	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	4.0	-	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 GR(G):200~400 BL(L):350~700

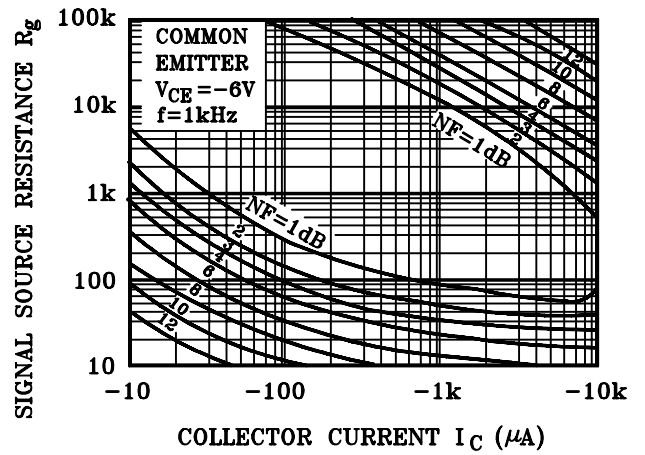
# KTA1517



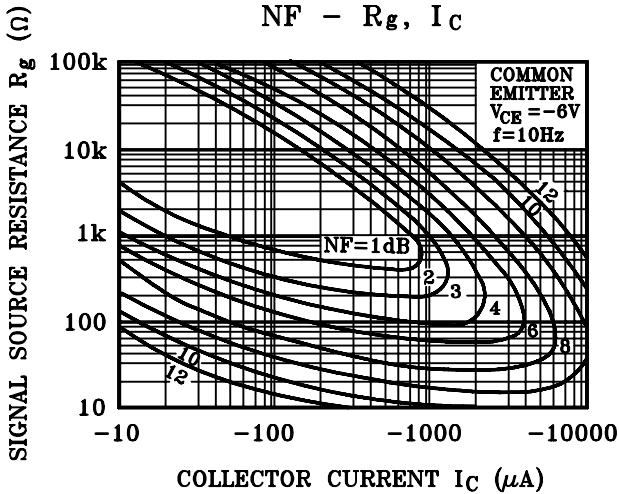
**h PARAMETER -  $V_{CE}$**



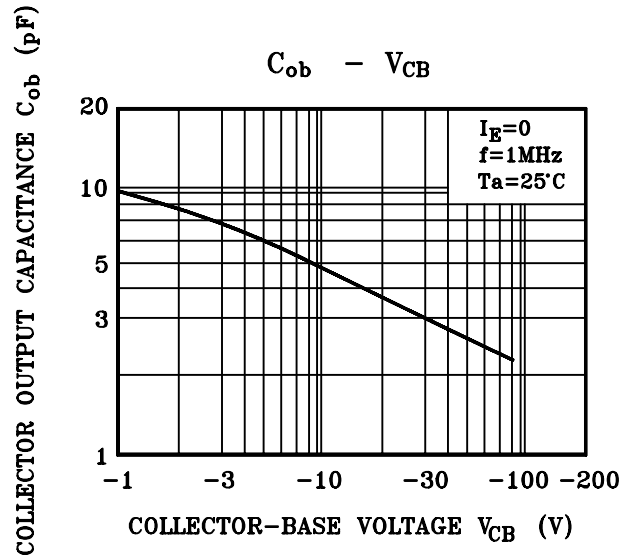
**NF -  $R_g, I_C$**



**NF -  $R_g, I_C$**



**$C_{ob}$  -  $V_{CB}$**



**$P_C$  -  $T_a$**

