

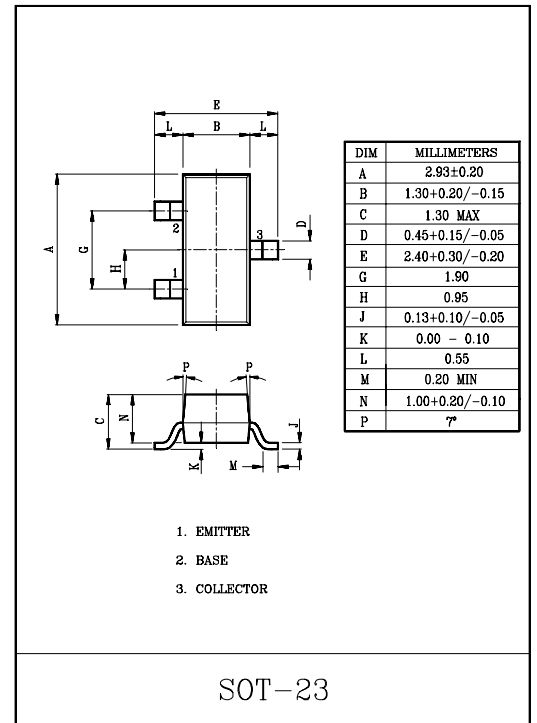
LOW NOISE AMPLIFIER APPLICATION.

FEATURES

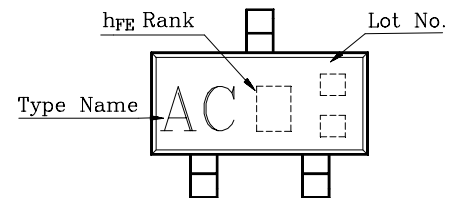
- High Voltage : $V_{CEO} = -120V$.
- Excellent h_{FE} Linearity
: $h_{FE}(0.1mA)/h_{FE}(2mA) = 0.95(Typ.)$.
- High h_{FE} : $h_{FE} = 200 \sim 700$.
- Low Noise : $NF = 1dB(Typ.)$, $10dB(Max.)$.
- Complementary to KTC3911.

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

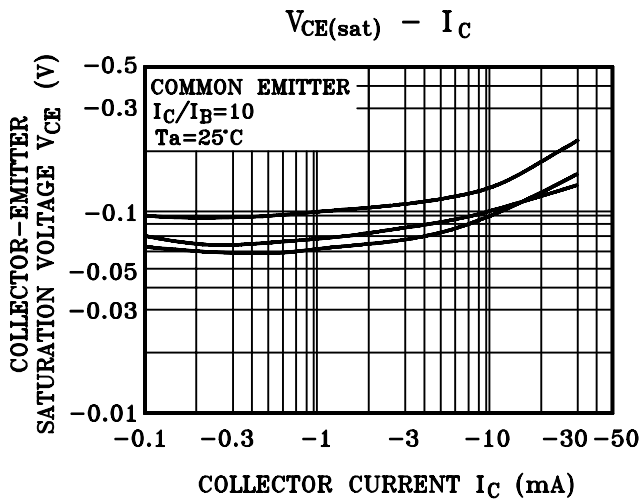
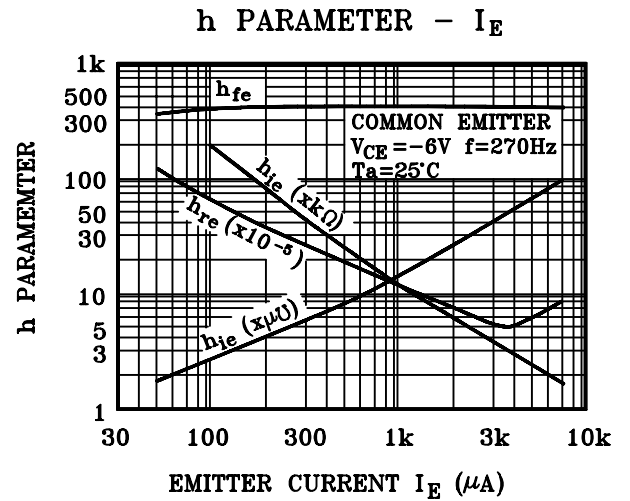
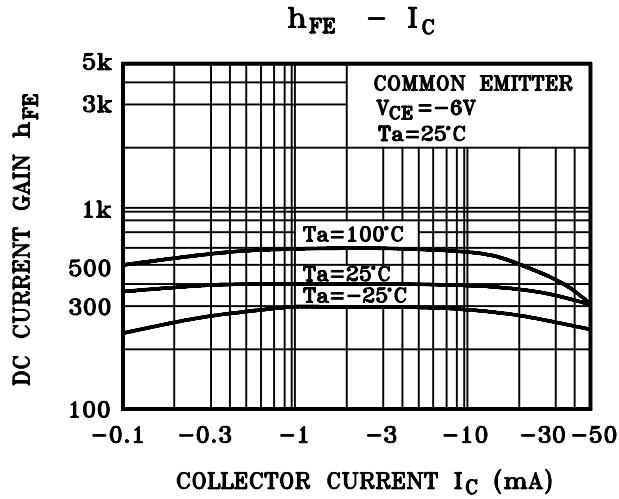
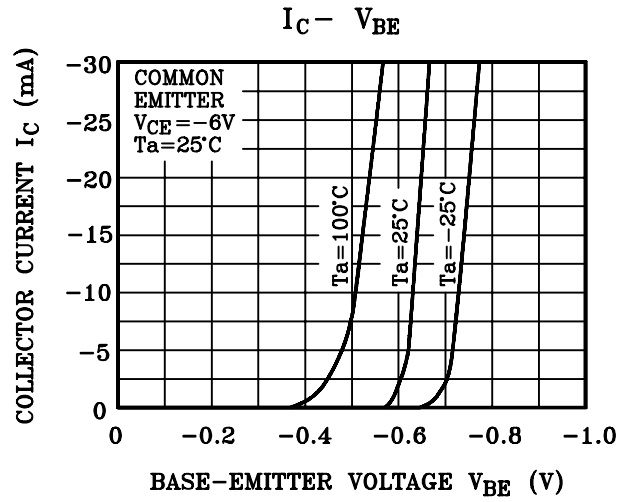
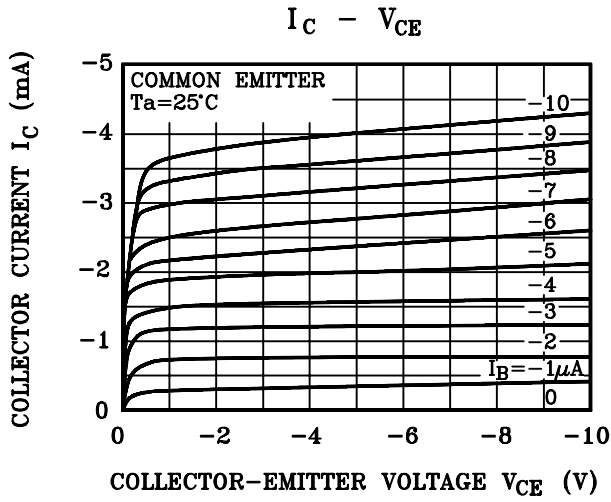


ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

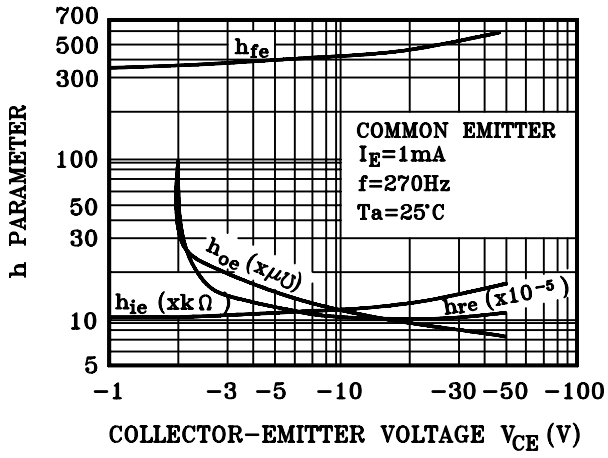
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -120V, I_E = 0$	-	-	-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V, I_C = 0$	-	-	-0.1	μA
DC Current Gain	h_{FE} (Note)	$V_{CE} = -6V, I_C = -2mA$	200	-	700	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -1mA$	-	-	-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

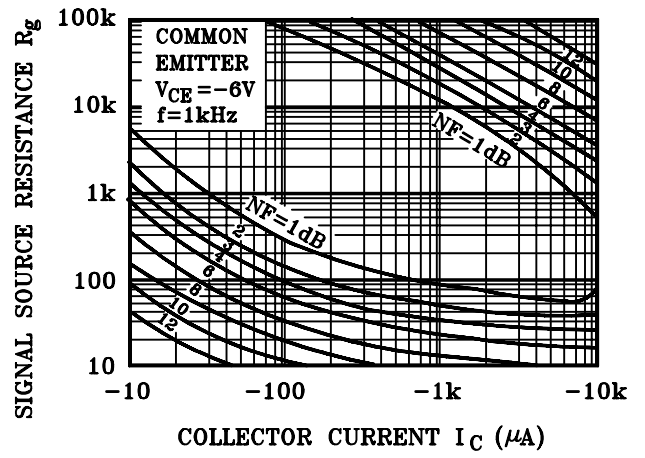
KTA1517



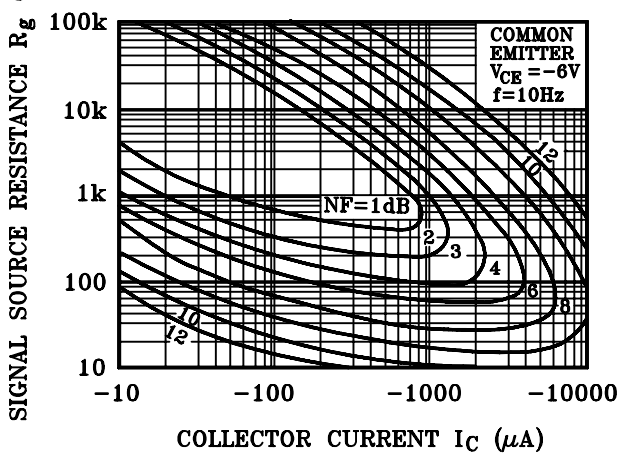
h PARAMETER - V_{CE}



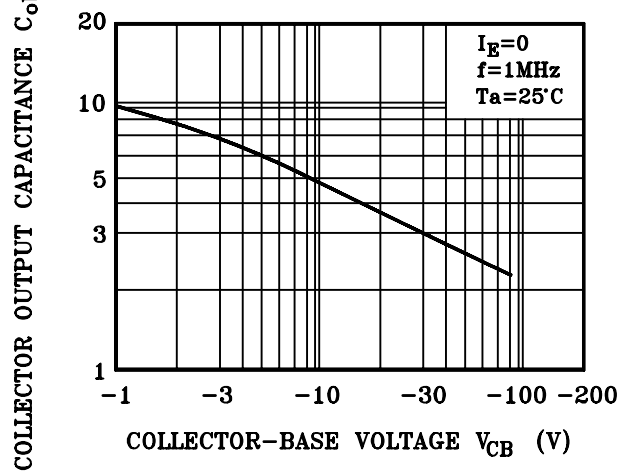
NF - R_g, I_C



NF - R_g, I_C



C_{ob} - V_{CB}



P_C - T_a

