

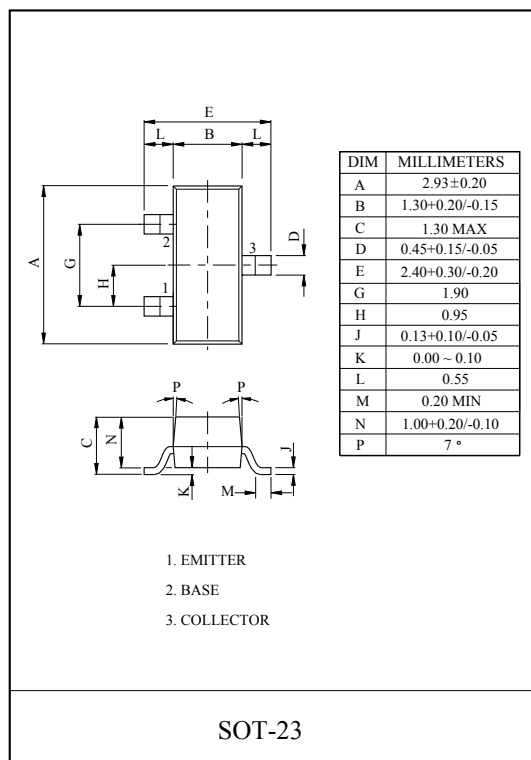
LOW NOISE AMPLIFIER APPLICATION.

FEATURES

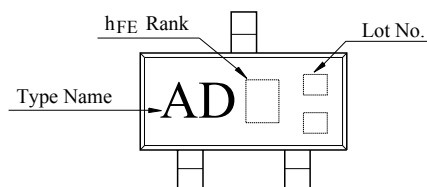
- High Voltage : $V_{CEO}=120V$.
- Excellent h_{FE} Linearity
: $h_{FE}(0.1mA)/h_{FE}(2mA)=0.95(Typ.)$.
- High h_{FE} : $h_{FE}=200 \sim 700$.
- Low Noise : $NF=1dB(Typ.)$, $10dB(Max.)$.
- Complementary to KTA1517S.

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



Marking

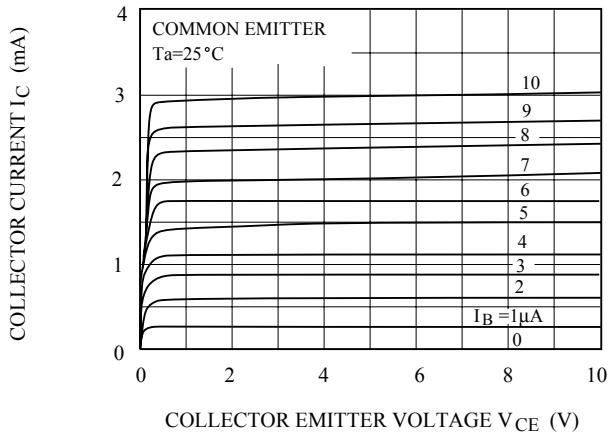


ELECTRICAL CHARACTERISTICS (Ta=25°C)

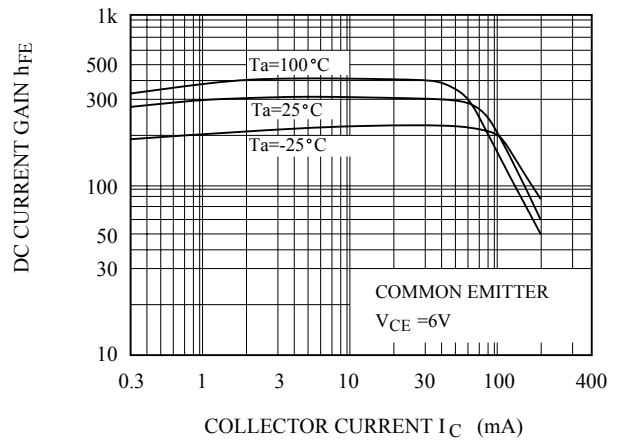
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=120V, I_E=0$	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$	-	-	0.1	μA
DC Current Gain	$h_{FE} (Note)$	$V_{CE}=6V, I_C=2mA$	200	-	700	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA,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

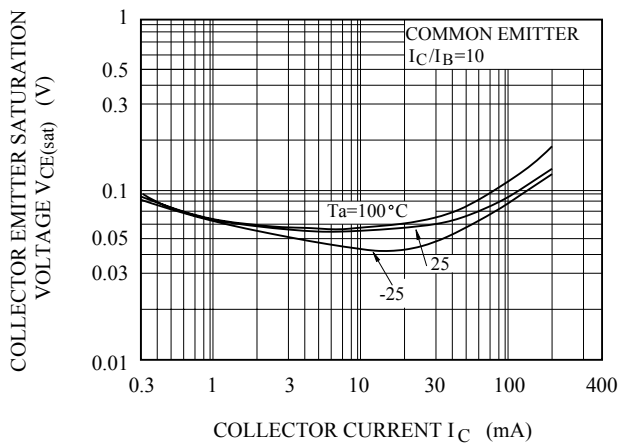
$I_C - V_{CE}$



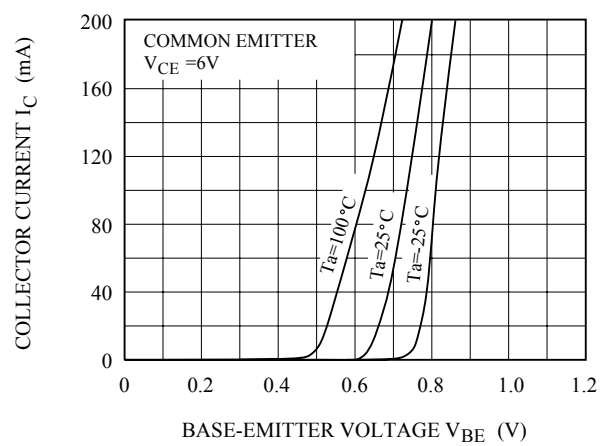
$h_{FE} - I_C$



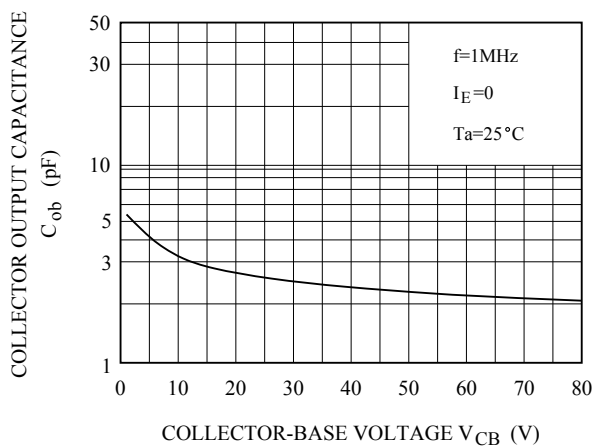
$V_{CE(sat)} - I_C$



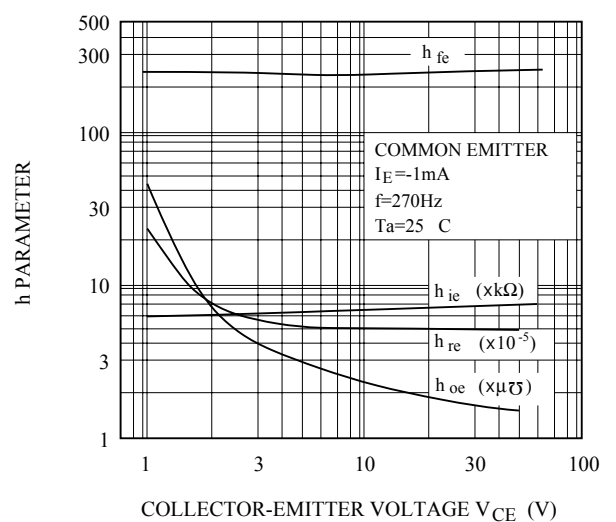
$I_C - V_{BE}$



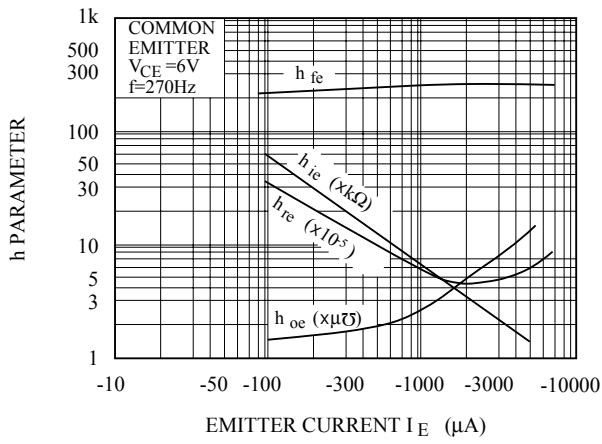
$C_{ob} - V_{CB}$



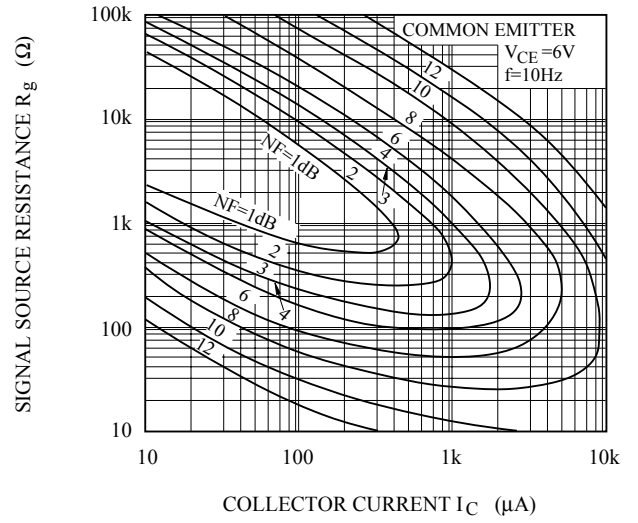
h PARAMETER - V_{CE}



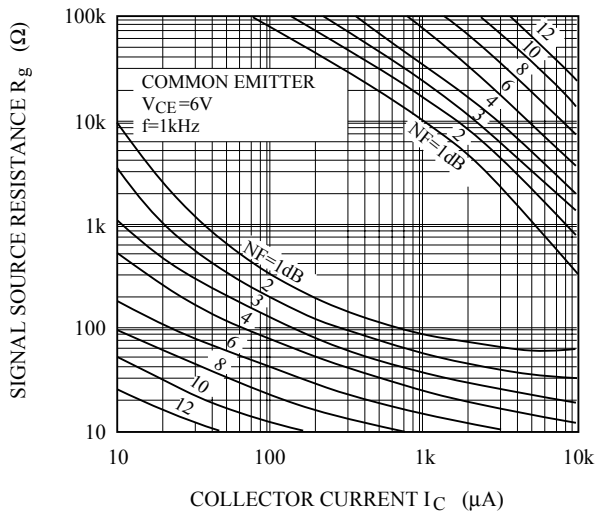
h PARAMETER - I_E



NF - R_g , I_C



NF - R_g , I_C



P_C - T_a

