

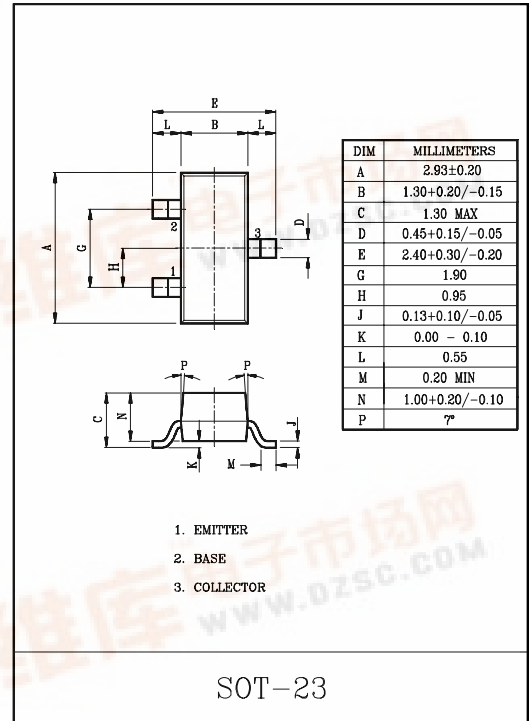
### LOW NOISE AMPLIFIER APPLICATION.

### FEATURES

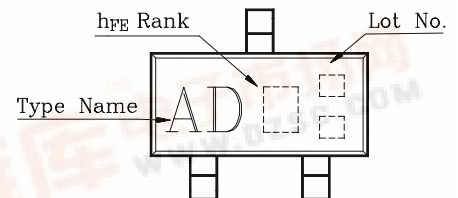
- High Voltage :  $V_{CE0}=120V$ .
- Excellent  $h_{FE}$  Linearity  
:  $h_{FE}(0.1mA)/h_{FE}(2mA)=0.95(Typ.)$ .
- High  $h_{FE}$  :  $h_{FE}=200 \sim 700$ .
- Low Noise :  $NF=1dB(Typ.)$ ,  $10dB(Max.)$ .
- Complementary to KTA1517.

### 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



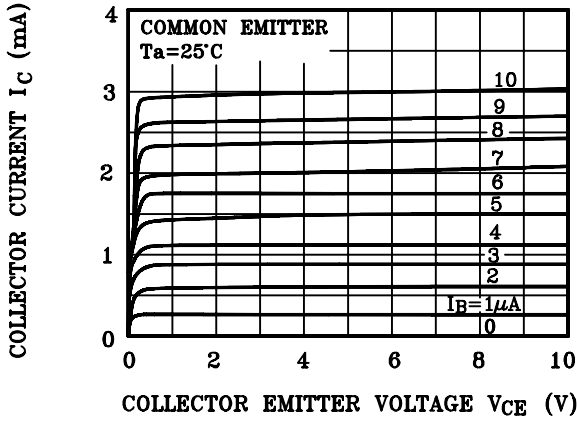
### ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}C$ )

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

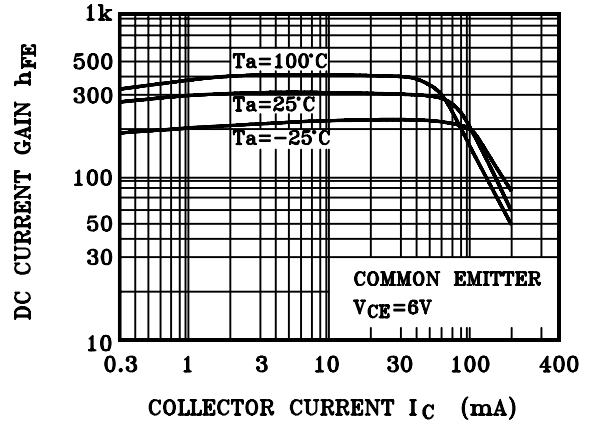
Note :  $h_{FE}$  Classification GR(G):200~400, BL(L):350~700

# KTC3911

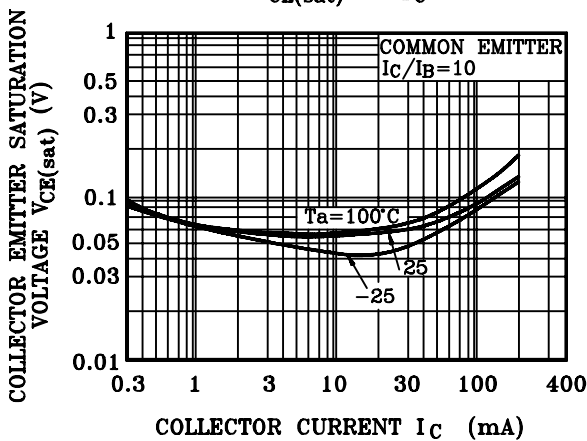
$I_C - V_{CE}$



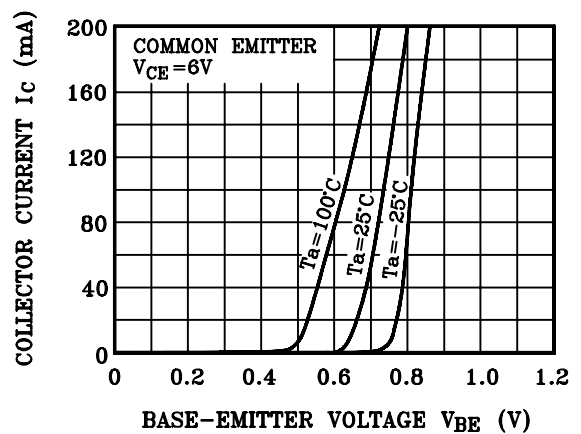
$h_{FE} - I_C$



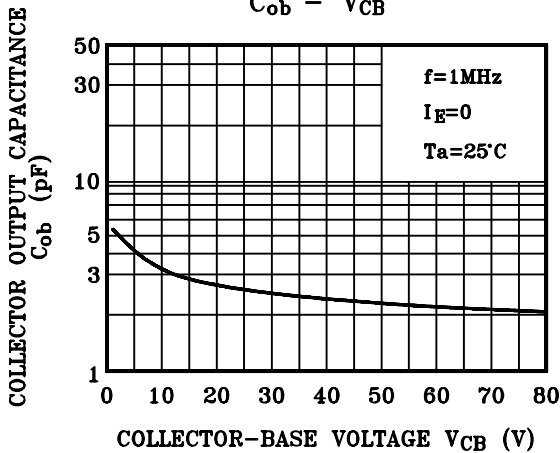
$V_{CE(sat)} - I_C$



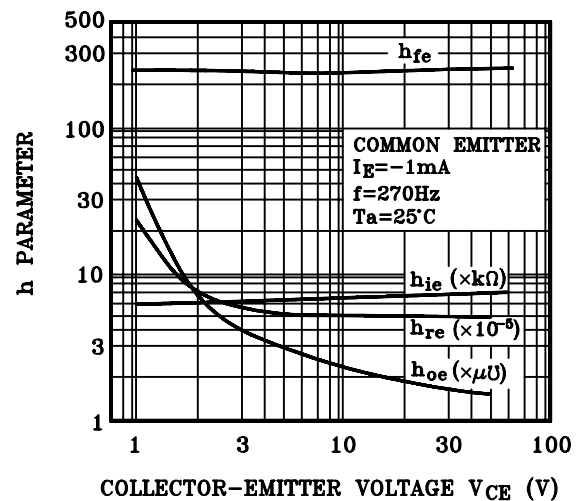
$I_C - V_{BE}$



$C_{ob} - V_{CB}$

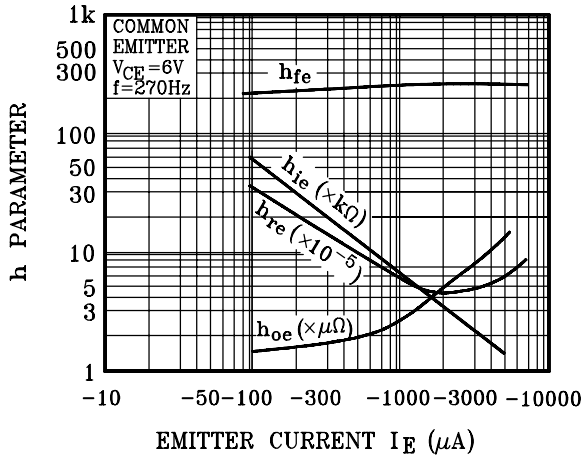


h PARAMETER -  $V_{CE}$

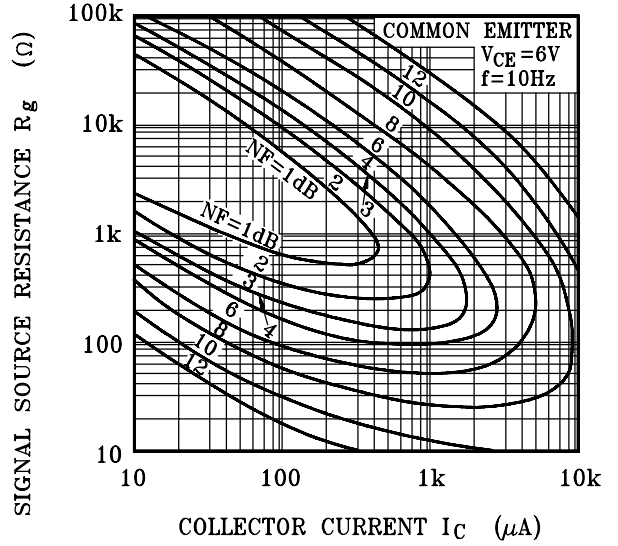


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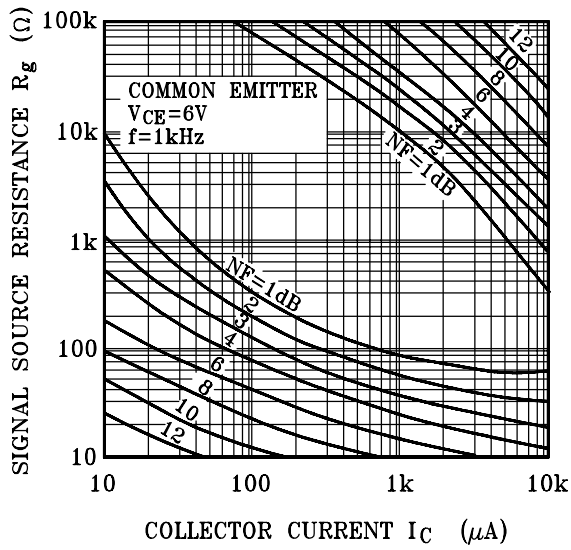
h PARAMETER -  $I_E$



NF -  $R_g, I_C$



NF -  $R_g, I_C$



$P_C - T_a$

