

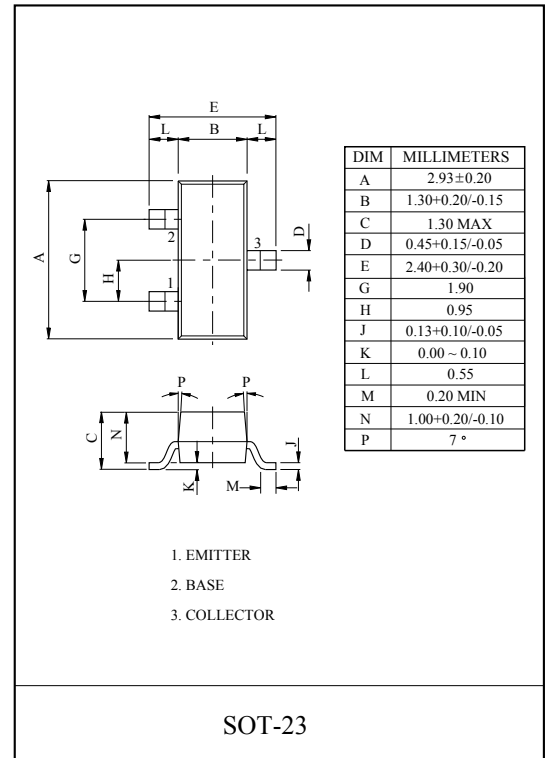
LOW NOISE AMPLIFIER APPLICATION.

FEATURES

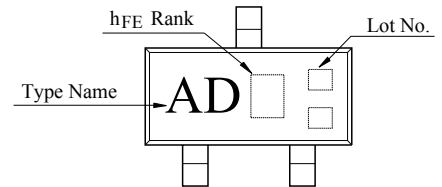
- High Voltage : $V_{CEO}=120V$.
- Excellent h_{FE} Linearity
: $h_{FE}(0.1mA)/h_{FE}(2mA)=0.95(Typ.)$.
- High h_{FE} : $h_{FE}=200 \sim 700$.
- Low Noise : $NF=1dB(Typ.)$, $10dB(Max.)$.
- Complementary to KTA1517S.

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



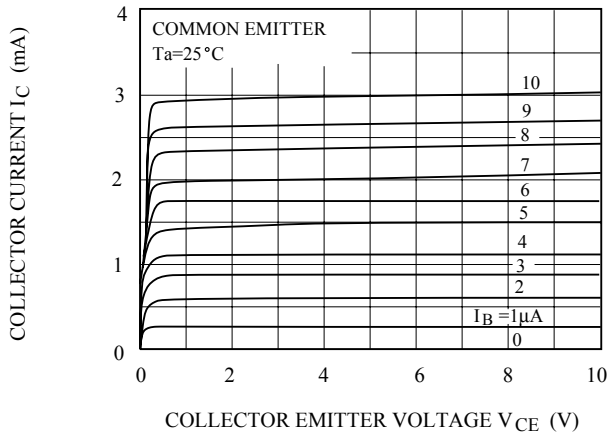
ELECTRICAL CHARACTERISTICS (Ta=25°C)

| 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 |

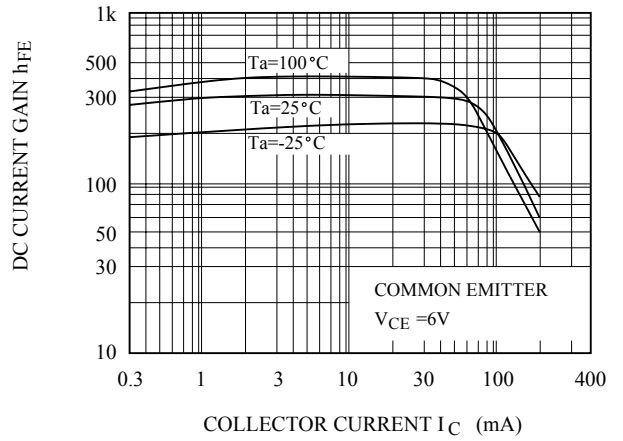
Note : h_{FE} Classification GR(G):200 ~ 400 BL(L):350 ~ 700

KTC3911S

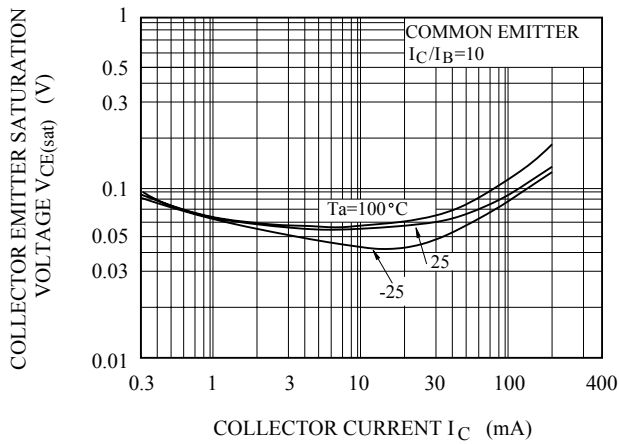
$I_C - V_{CE}$



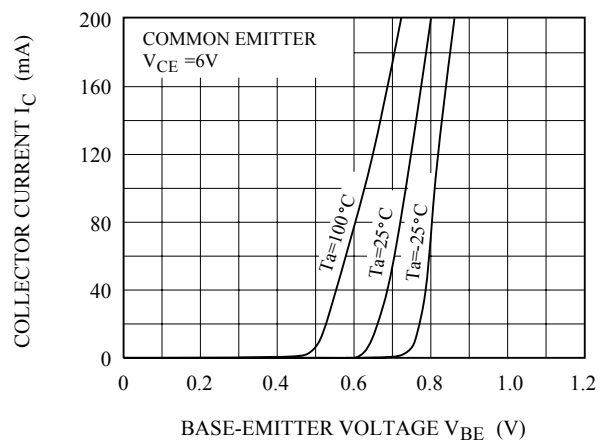
$h_{FE} - I_C$



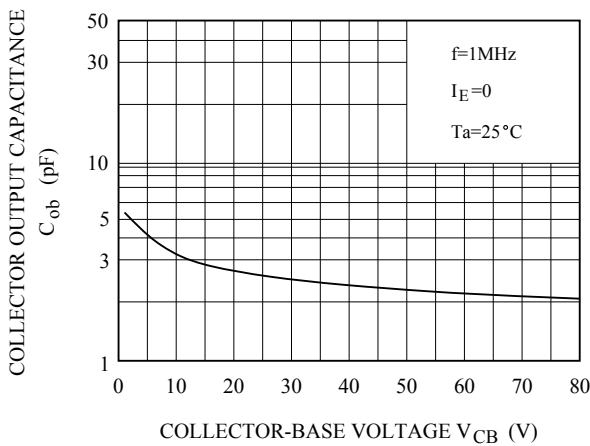
$V_{CE(sat)} - I_C$



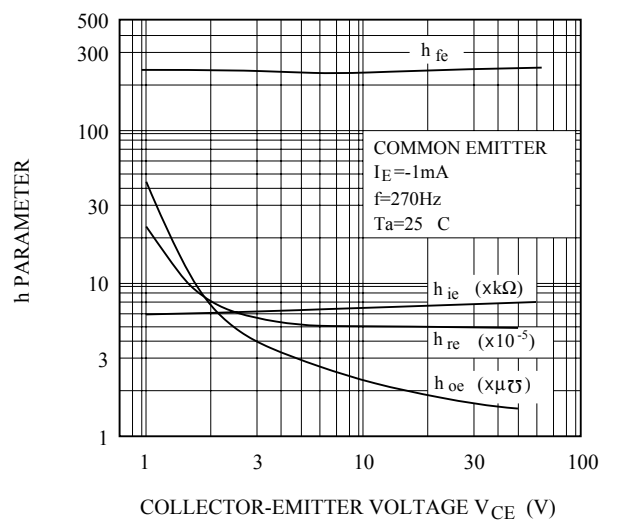
$I_C - V_{BE}$



$C_{ob} - V_{CB}$

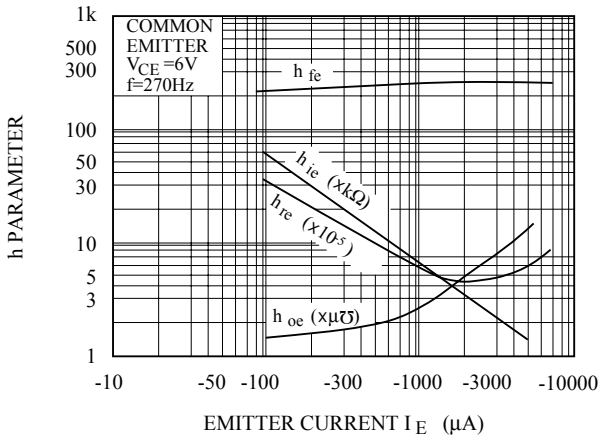


h PARAMETER - V_{CE}

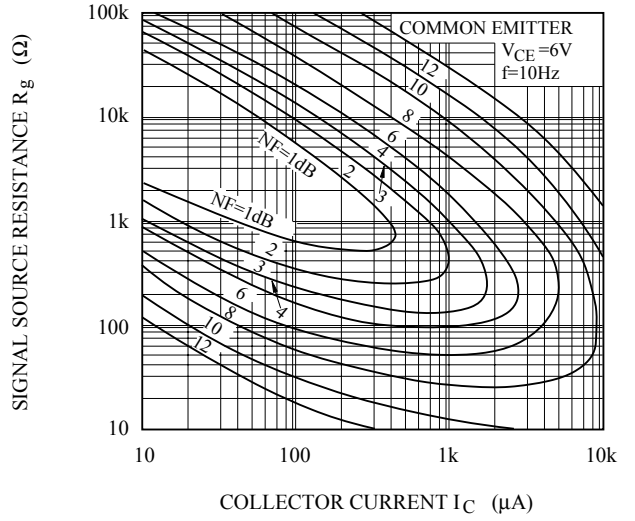


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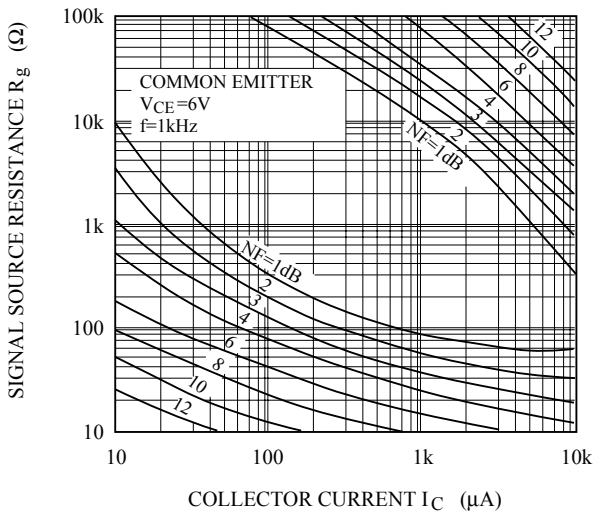
h PARAMETER - I_E



NF - R_g, I_C



NF - R_g, I_C



$P_C - T_a$

