

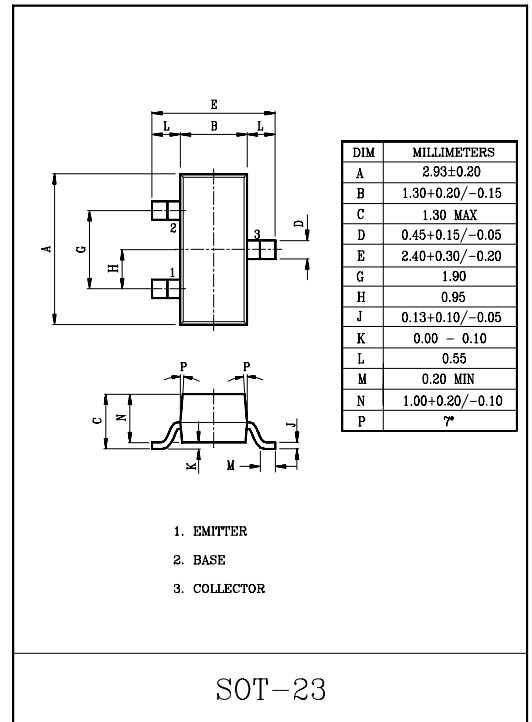
HIGH FREQUENCY LOW NOISE AMPLIFIER.
VHF BAND AMPLIFIER APPLICATION.

FEATURES

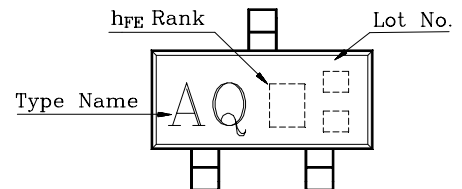
- Small Reverse Transfer Capacitance
: $C_{re}=0.7\text{pF}$ (Typ.)
- Low Noise Figure : $NF=2.5\text{dB}$ (Typ.) ($f=100\text{MHz}$).

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|---------|------------------|
| Collector-Base Voltage | V_{CB0} | 40 | V |
| Collector-Emitter Voltage | V_{CEO} | 30 | V |
| Emitter-Base Voltage | V_{EBO} | 4 | V |
| Collector Current | I_C | 20 | mA |
| Emitter Current | I_E | -20 | mA |
| Collector Power Dissipation | P_C | 150 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -55~150 | $^\circ\text{C}$ |



Marking



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

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|------------------------------|--------------------|---|------|------|------|---------------|
| Collector Cut-off Current | I_{CBO} | $V_{CB}=18\text{V}, I_E=0$ | - | - | 0.5 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=4\text{V}, I_C=0$ | - | - | 0.5 | μA |
| DC Current Gain | h_{FE} (Note) | $V_{CE}=6\text{V}, I_C=1\text{mA}$ | 40 | - | 200 | |
| Reverse Transfer Capacitance | C_{re} | $V_{CE}=6\text{V}, f=1\text{MHz}$ | - | 0.7 | - | pF |
| Transition Frequency | f_T | $V_{CE}=6\text{V}, I_C=1\text{mA}$ | - | 550 | - | MHz |
| Collector-Base Time Constant | $C_c \cdot r_{bb}$ | $V_{CE}=6\text{V}, I_E=-1\text{mA}, f=30\text{MHz}$ | - | - | 30 | pS |
| Noise Figure | NF | $V_{CE}=6\text{V}, I_E=-1\text{mA}$ $f=100\text{MHz}$ (Fig.) | - | 2.5 | 5.0 | dB |
| Power Gain | G_{pe} | | 15 | 18 | - | |

Note : h_{FE} Classification R:40~80 , O:70~140 , Y:100~200

