

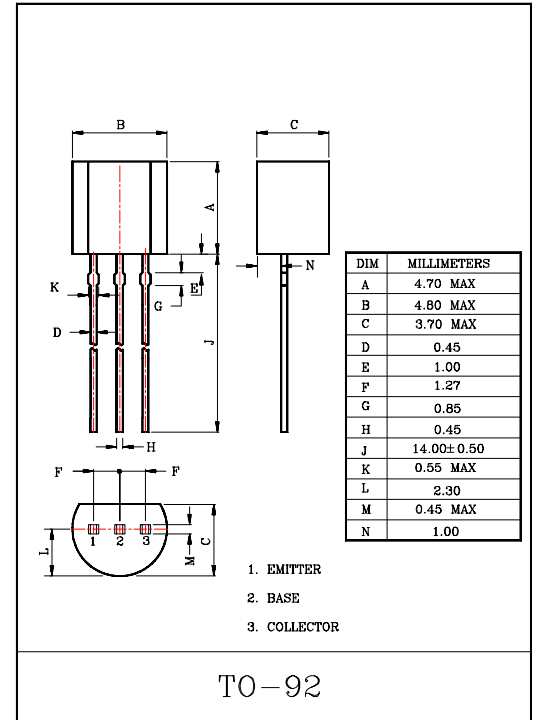
HIGH FREQUENCY LOW NOISE AMPLIFIER APPLICATION.
HF, VHF BAND AMPLIFIER APPLICATION.

FEATURES

- Small Reverse Transfer Capacitance
: $C_{re}=0.65\text{pF(Typ.)}$.
- Low Noise Figure :NF=2.2dB(Typ.) at $f=100\text{MHz}$.

MAXIMUM RATINGS (Ta=25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|-----------|------|
| Collector-Base Voltage | V_{CBO} | 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 | 625 | mW |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature Range | T_{stg} | -55 ~ 150 | °C |



ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|------------------------------|-----------------------|--|------|------|------|---------------|
| Collector Cut-off Current | I_{CBO} | $V_{CB}=40\text{V}, I_E=0$ | - | - | 0.1 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=4\text{V}, I_C=0$ | - | - | 0.1 | μA |
| DC Current Gain | $h_{FE}(\text{Note})$ | $V_{CE}=5\text{V}, I_C=1\text{mA}$ | 40 | - | 198 | |
| Reverse Transfer Capacitance | C_{re} | $V_{CE}=6\text{V}, f=1\text{MHz}$ | - | - | 1.0 | pF |
| Transition Frequency | f_T | $V_{CE}=6\text{V}, I_E=-1\text{mA}, f=200\text{MHz}$ | 260 | - | - | 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 | $V_{CE}=6\text{V}, I_E=-1\text{mA}, f=100\text{MHz}$ | - | 2.2 | 4.0 | dB |
| Power Gain | G_{pe} | | 15 | - | - | dB |

Note) h_{FE} Classification E : 40~59, F : 54~80, G : 72~108, H : 97~146, I : 130~198