

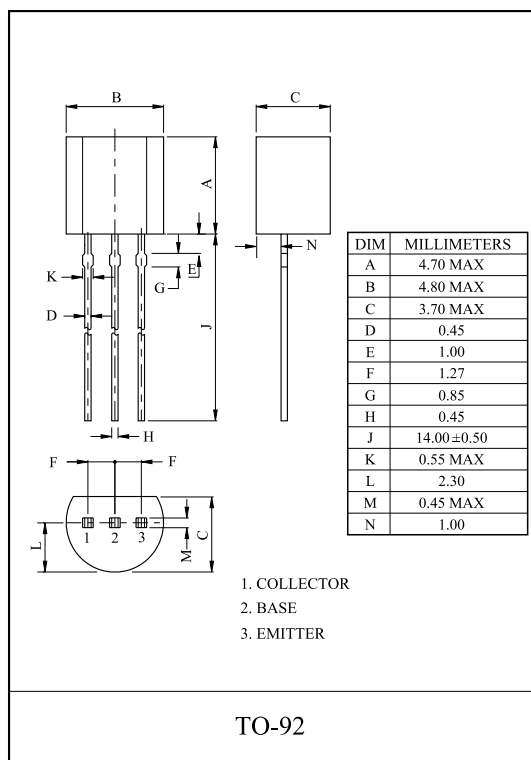
LOW NOISE AMPLIFIER APPLICATION.

FEATURE

- For Complementary with PNP Type BC559/560.

MAXIMUM RATING (Ta=25)

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|-----------------------------|-------|-----------|---------|------|
| Collector-Base Voltage | BC549 | V_{CBO} | 30 | V |
| | BC550 | | 50 | |
| Collector-Emitter Voltage | BC549 | V_{CEO} | 30 | V |
| | BC550 | | 45 | |
| Emitter-Base Voltage | | V_{EBO} | 5 | V |
| Collector Current | | I_C | 100 | mA |
| Collector Power Dissipation | | P_C | 625 | mW |
| Junction Temperature | | T_j | 150 | |
| Storage Temperature Range | | T_{stg} | -55 150 | |



Datasheet.Directory

ELECTRICAL CHARACTERISTICS (Ta=25)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|-------|-----------------------|--|------|------|------|------|
| Collector-Emitter Breakdown Voltage | BC549 | $V_{(BR)CEO}$ | $I_C=10mA, I_B=0$ | 30 | - | - | V |
| | BC550 | | | 45 | - | - | |
| Collector-Base Breakdown Voltage | BC549 | $V_{(BR)CBO}$ | $I_C=10\mu A, I_E=0$ | 30 | - | - | V |
| | BC550 | | | 50 | - | - | |
| Emitter-Base Breakdown Voltage | | $V_{(BR)EBO}$ | $I_E=10\mu A, I_C=0$ | 5.0 | - | - | V |
| Collector Cut-off Current | | I_{CBO} | $V_{CB}=30V, I_E=0$ | - | - | 15 | nA |
| DC Current Gain | | $h_{FE}(\text{Note})$ | $I_C=2mA, V_{CE}=5V$ | 110 | - | 800 | |
| Base-Emitter Voltage | | $V_{BE(ON)}$ | $I_C=2mA, V_{CE}=5V$ | 0.55 | - | 0.7 | V |
| Collector-Emitter Saturation Voltage | | $V_{CE(sat)}$ | $I_C=100mA, I_B=5mA$ | - | - | 0.6 | V |
| Base-Emitter Saturation Voltage | | $V_{BE(sat)}$ | $I_C=100mA, I_B=5mA$ | - | 0.9 | - | V |
| Transition Frequency | | f_T | $I_C=10mA, V_{CE}=5V, f=100MHz$ | - | 300 | - | MHz |
| Collector Output Capacitance | | C_{ob} | $V_{CB}=10V, I_E=0, f=1MHz$ | - | - | 4.5 | pF |
| Noise Figure | BC549 | NF | $I_C=200\mu A, V_{CE}=5V$ $R_g=10k, f=1kHz$ | - | - | 4.0 | dB |
| | BC550 | | | - | - | 10 | |

Note : h_{FE} Classification A:110 220, B:200 450, C:420 800