

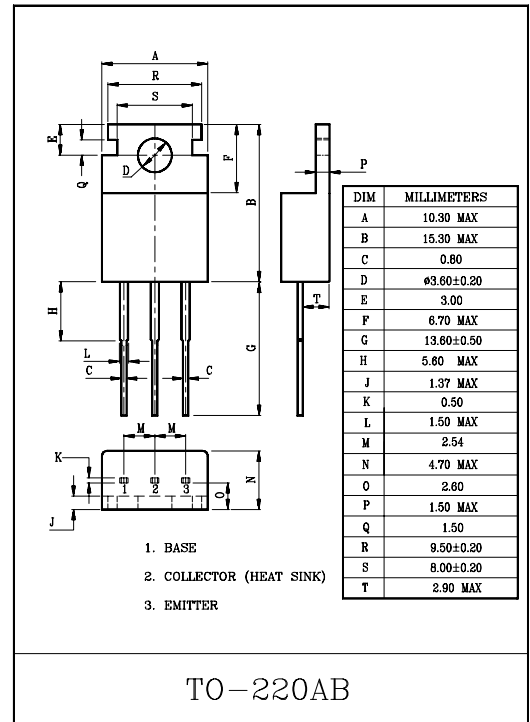
GENERAL PURPOSE APPLICATION.

FEATURES

- Good Linearity of h_{FE} .
- Complementary to KTB989.

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

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|-----------|-----------|------------------|
| Collector-Base Voltage | V_{CBO} | 80 | V |
| Collector-Emitter Voltage | V_{CEO} | 80 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 4 | A |
| Emitter Current | I_E | -4 | A |
| Base Current | I_B | 0.4 | A |
| Collector Power Dissipation ($T_C=25^\circ\text{C}$) | P_C | 30 | W |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -55 ~ 150 | $^\circ\text{C}$ |



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

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|-----------------------|---|------|------|------|---------------|
| Collector Cut-off Current | I_{CBO} | $V_{CB}=80\text{V}, I_E=0$ | - | - | 30 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=5\text{V}, I_C=0$ | - | - | 100 | μA |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=50\text{mA}, I_B=0$ | 80 | - | - | V |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=10\text{mA}, I_C=0$ | 5.0 | - | - | V |
| DC Current Gain | $h_{FE(1)}$ (Note) | $V_{CE}=5\text{V}, I_C=0.5\text{A}$ | 40 | - | 240 | |
| | $h_{FE(2)}$ | $V_{CE}=5\text{V}, I_C=3\text{A}$ | 15 | 50 | - | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=3\text{A}, I_B=0.3\text{A}$ | - | 0.45 | 1.5 | V |
| Base-Emitter Voltage | V_{BE} | $V_{CE}=5\text{V}, I_C=3\text{A}$ | - | 1.0 | 1.5 | V |
| Transition Frequency | f_T | $V_{CE}=5\text{V}, I_C=0.5\text{A}$ | 3.0 | 8.0 | - | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$ | - | 90 | - | pF |

Note : $h_{FE(1)}$ Classification R:40~80, 0:70~140, Y:120~240

