

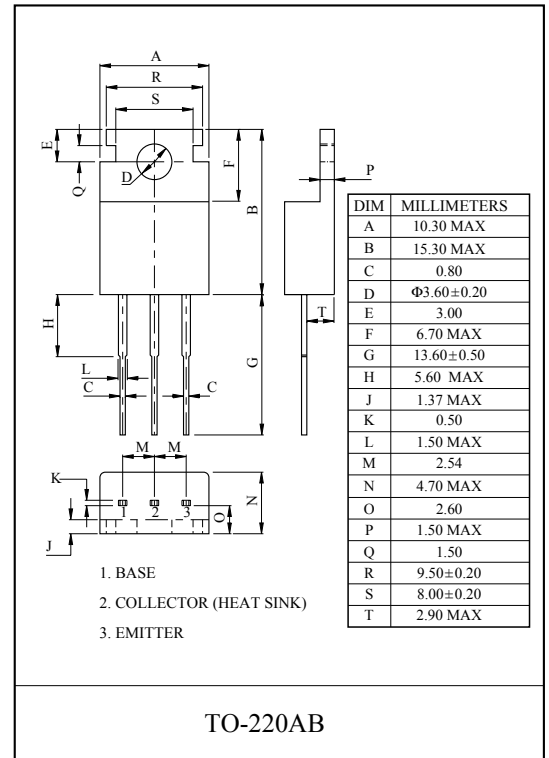
MONOLITHIC CONSTRUCTION WITH BUILT IN
BASE-EMITTER SHUNT RESISTORS INDUSTRIAL USE.

FEATURES

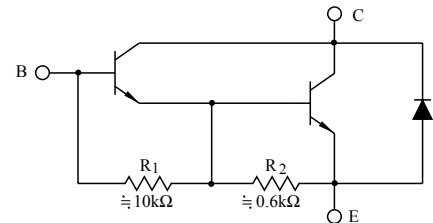
- High DC Current Gain.
: $h_{FE}=1000(\text{Min.})$, @ $V_{CE}=4\text{V}$, $I_C=1\text{A}$.
- Low Collector-Emitter Saturation Voltage.
- Complementary to TIP117.

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

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|--------------------------------|------------------------|-----------|------------------|
| Collector-Base Voltage | V_{CBO} | 100 | V |
| Collector-Emitter Voltage | V_{CEO} | 100 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | DC | I_C | A |
| | Pulse | I_{CP} | |
| Base Current | DC | I_B | 50 mA |
| Collector Power Dissipation | $T_a=25^\circ\text{C}$ | P_C | 2 |
| | $T_c=25^\circ\text{C}$ | | 50 |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -65 ~ 150 | $^\circ\text{C}$ |



EQUIVALENT CIRCUIT



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

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|-----------------------|---|------|------|------|------|
| Collector Cut-off Current | I_{CEO} | $V_{CE}=50\text{V}$, $I_B=0$ | - | - | 2 | mA |
| | I_{CBO} | $V_{CB}=100\text{V}$, $I_E=0$ | - | - | 1 | |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=5\text{V}$, $I_C=0$ | - | - | 2 | mA |
| DC Current Gain | h_{FE} | $V_{CE}=4\text{V}$, $I_C=1\text{A}$ | 1000 | - | - | |
| | | $V_{CE}=4\text{V}$, $I_C=2\text{A}$ | 500 | - | - | |
| Collector-Emitter Sustaining Voltage | $V_{CEO(\text{SUS})}$ | $I_C=30\text{mA}$, $I_B=0$ | 100 | - | - | V |
| Collector-Emitter Saturation Voltage | $V_{CE(\text{sat})}$ | $I_C=2\text{A}$, $I_B=8\text{mA}$ | - | - | 2.5 | V |
| Base-Emitter On Voltage | $V_{BE(\text{ON})}$ | $V_{CE}=4\text{V}$, $I_C=2\text{A}$ | - | - | 2.8 | V |
| Collector Output Capacitance | C_{ob} | $V_{CB}=10\text{V}$, $I_E=0$, $f=0.1\text{MHz}$ | - | - | 100 | pF |

TIP112

