

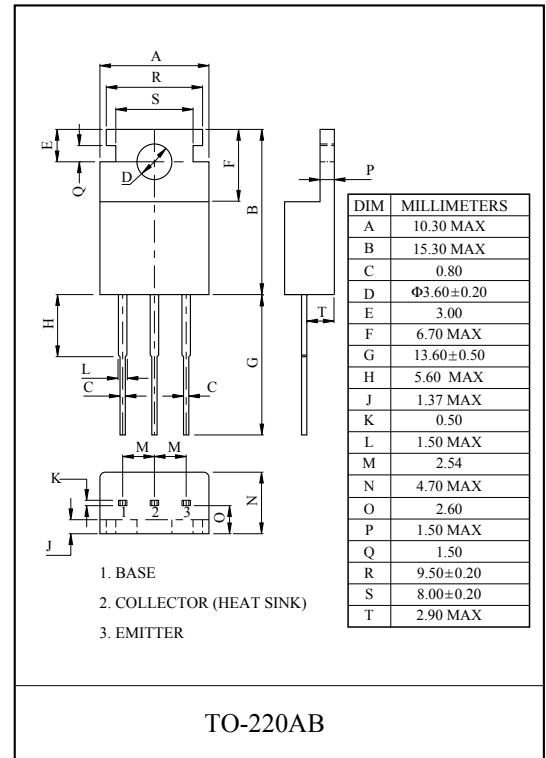
MONOLITHIC CONSTRUCTION WITH BUILT IN
BASE-EMITTER SHUNT RESISTORS INDUSTRIAL USE.

FEATURES

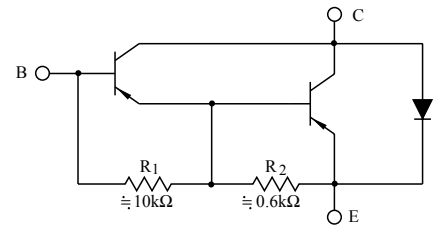
- High DC Current Gain.
: $h_{FE}=1000(\text{Min.})$, @ $V_{CE}=-4V$, $I_C=-1A$.
- Low Collector-Emitter Saturation Voltage.
- Complementary to TIP112.

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 | -2 |
| | Pulse | I_{CP} | -4 |
| Base Current | DC | I_B | -50 |
| 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} | $V_{CE}=-50V$, $I_B=0$ | - | - | -2 | mA |
| | I_{CBO} | $V_{CB}=-100V$, $I_E=0$ | - | - | -1 | |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=-5V$, $I_C=0$ | - | - | -2 | mA |
| DC Current Gain | h_{FE} | $V_{CE}=-4V$, $I_C=-1A$ | 1000 | - | - | |
| | | $V_{CE}=-4V$, $I_C=-2A$ | 500 | - | - | |
| Collector-Emitter Sustaining Voltage | $V_{CEO(SUS)}$ | $I_C=-30mA$, $I_B=0$ | -100 | - | - | V |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=-2A$, $I_B=-8mA$ | - | - | -2.5 | V |
| Base-Emitter On Voltage | $V_{BE(ON)}$ | $V_{CE}=-4V$, $I_C=-2A$ | - | - | -2.8 | V |
| Collector Output Capacitance | C_{ob} | $V_{CB}=-10V$, $I_E=0$, $f=0.1\text{MHz}$ | - | - | 200 | pF |

TIP117

