

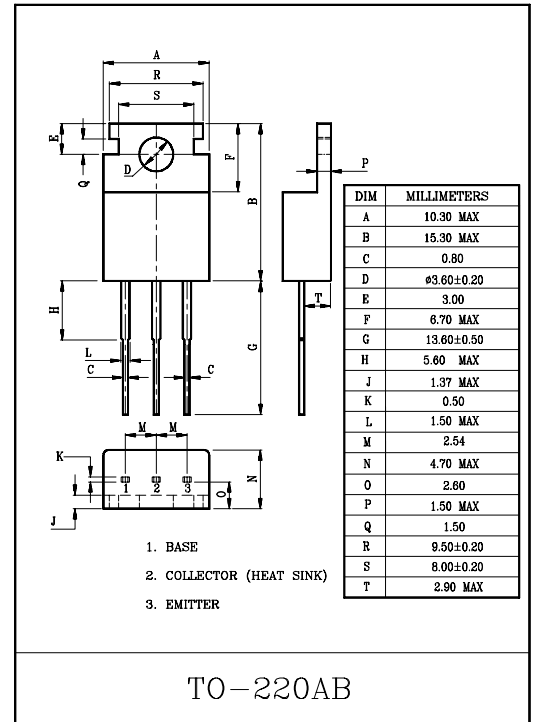
SWITCHING APPLICATION.
HAMMER DRIVER, PULSE MOTOR DRIVE APPLICATION.

FEATURE

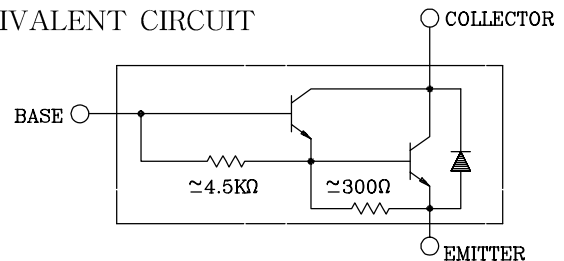
- High DC Current Gain : $h_{FE}=2000(\text{Min.})$ ($V_{CE}=2V, I_C=1A$).

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

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|-----------|---------|------------------|
| Collector-Base Voltage | V_{CBO} | 100 | V |
| Collector-Emitter Voltage | V_{CEO} | 80 | V |
| Emitter-Base Voltage | V_{EB0} | 5 | V |
| Continuous Collector Current | I_C | 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 | $^\circ\text{C}$ |



EQUIVALENT CIRCUIT



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

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|-------------------------------------|-------------------|---------------|--------------------------|--|------|------|---------------|
| Collector Cut-off Current | | I_{CBO} | $V_{CB}=100V, I_E=0$ | - | - | 20 | μA |
| Emitter Cut-off Current | | I_{EBO} | $V_{EB}=5V, I_C=0$ | - | - | 2.5 | mA |
| Collector-Emitter Breakdown Voltage | | $V_{(BR)CEO}$ | $I_C=10\text{mA}, I_B=0$ | 80 | - | - | V |
| DC Current Gain | | $h_{FE(1)}$ | $V_{CE}=2V, I_C=1A$ | 2000 | - | - | |
| | | $h_{FE(2)}$ | $V_{CE}=2V, I_C=3A$ | 1000 | - | - | |
| Saturation Voltage | Collector-Emitter | $V_{CE(sat)}$ | $I_C=3A, I_B=6\text{mA}$ | - | - | 1.5 | V |
| | Base-Emitter | $V_{BE(sat)}$ | $I_C=3A, I_B=6\text{mA}$ | - | - | 2.0 | |
| Switching Time | Turn-on Time | t_{on} | | - | 0.2 | - | μs |
| | Storage Time | t_{stg} | | - | 1.5 | - | |
| | Fall Time | t_f | | $I_{B1} = -I_{B2} = 6\text{mA}$ DUTY CYCLE $\leq 1\%$ | - | 0.6 | |

