



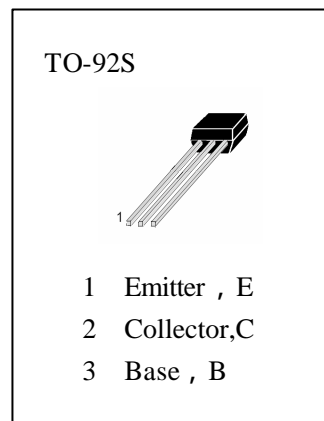
HA144T

APPLICATIONS

Switching Circuit , Interface Circuit.

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

| | | |
|-----------|--------------------------------|---------|
| T_{stg} | Storage Temperature..... | -55~150 |
| T_j | Junction Temperature..... | 150 |
| P_C | Collector Dissipation..... | 300mW |
| V_{CBO} | Collector-Base Voltage..... | -50V |
| V_{CEO} | Collector-Emitter Voltage..... | -50V |
| V_{EBO} | Emitter-Base Voltage..... | -5V |
| I_C | Collector Current..... | -100mA |



ELECTRICAL CHARACTERISTICS ($T_a=25$)

| Symbol | Characteristics | Min | Typ | Max | Unit | Test Conditions |
|---------------|---------------------------------------|------|-------|------|---------|--------------------------|
| BVCBO | Collector-Base Breakdown Voltage | -50 | | | V | $I_C=-10 \mu A, I_E=0$ |
| BVCEO | Collector-Emitter Breakdown Voltage | -50 | | | V | $I_C=-0.1mA, I_B=0$ |
| BVEBO | Emitter-Base Breakdown Voltage | -5 | | | V | $I_E=-50 \mu A, I_C=0$ |
| ICBO | Collector Cut-off Current | | | -0.1 | μA | $V_{CB}=-40V, I_E=0$ |
| IEBO | Emitter Cut-off Current | | | -0.1 | μA | $V_{EB}=-5V, I_C=0$ |
| HFE | DC Current Gain | 100 | 250 | 600 | | $V_{CE}=-5V, I_C=-1mA$ |
| $V_{CE(sat)}$ | Collector- Emitter Saturation Voltage | | -0.1 | -0.3 | V | $I_C=-5mA, I_B=-0.5mA$ |
| $V_I(off)$ | Input Off Voltage | -0.4 | -0.55 | -0.8 | V | $V_{CE}=-5V, I_C=-0.1mA$ |
| $V_I(on)$ | Input On Voltage | -0.8 | -2.0 | -4.0 | V | $V_{CE}=-0.2V, I_C=-5mA$ |
| R1 | Input Resistor | 33 | 47 | 61 | K | |
| fr | Current Gain-Bandwidth Product | | 250 | | MHz | $V_{CE}=-10V, I_C=-5mA$ |
| Cob | Output Capacitance | | 5.5 | | pF | $V_{CB}=-10V, f=1MHz$ |