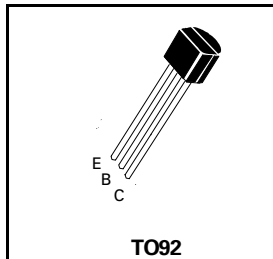


NPN SILICON PLANAR MEDIUM POWER DARLINGTON TRANSISTOR

BC372

ISSUE 2 – SEPT 93
FEATURES

- * 100 Volt V_{CE0}
- * Gain of 8k at $I_C=250\text{mA}$
- * $I_C=1$ Amp


ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|----------------|-------------|------------------|
| Collector-Base Voltage | V_{CBO} | 100 | V |
| Collector-Emitter Voltage | V_{CEO} | 100 | V |
| Emitter-Base Voltage | V_{EBO} | 12 | V |
| Continuous Collector Current | I_C | 1 | A |
| Power Dissipation at $T_{amb}=25^\circ\text{C}$ | P_{tot} | 625 | mW |
| Operating and Storage Temperature Range | $T_j; T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$).

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | CONDITIONS. |
|---------------------------------------|---------------|-----------|------|------|------|--|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | 100 | | | V | $I_C=100\mu\text{A}$, $I_E=0$ |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CES}$ | 100 | | | V | $I_C=100\mu\text{A}$, $I_B=0^*$ |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | 12 | | | V | $I_E=10\mu\text{A}$, $I_C=0$ |
| Collector Cut-Off Current | I_{CBO} | | | 100 | nA | $V_{CB}=80\text{V}$, $I_E=0$ |
| Emitter Cut-Off Current | I_{EBO} | | | 100 | nA | $V_{EB}=10\text{V}$, $I_C=0$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | | 1.0 | V | $I_C=250\text{mA}$, $I_B=0.25\text{mA}$ |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | | | 2 | V | $I_C=250\text{mA}$, $I_B=0.25\text{mA}$ |
| Static Forward Current Transfer Ratio | h_{FE} | 10K 8K | | | | $I_C=100\text{mA}$, $V_{CE}=5\text{V}^*$ $I_C=250\text{mA}$, $V_{CE}=5\text{V}^*$ |
| Transition Frequency | f_T | 100 | | | MHz | $I_C=100\text{mA}$, $V_{CE}=5\text{V}$ $f=100\text{MHz}$ |
| Output Capacitance | C_{obo} | | | 25 | pF | $V_{CB}=10\text{V}$, $f=1\text{MHz}$ |