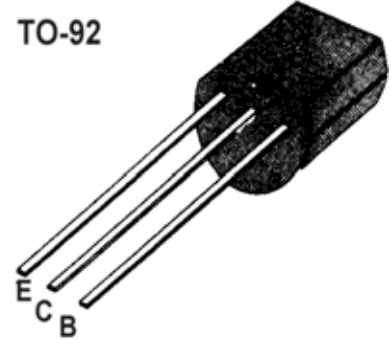


■■ APPLICATION: General Purpose Amplifier Applications.

Switching Applications.

■■ MAXIMUM RATING (Ta=25°C)

| PARAMETER                   | SYMBOL           | RATING   | UNIT |
|-----------------------------|------------------|----------|------|
| Collector-base voltage      | V <sub>CB0</sub> | 30       | V    |
| Collector-emitter voltage   | V <sub>CEO</sub> | 20       | V    |
| Emitter-base voltage        | V <sub>EBO</sub> | 5        | V    |
| Collector current           | I <sub>C</sub>   | 800      | mA   |
| Collector Power Dissipation | P <sub>C</sub>   | 800      | mW   |
| Junction Temperature        | T <sub>J</sub>   | 150      | °C   |
| Storage Temperature Range   | T <sub>stg</sub> | - 55~150 | °C   |



■■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

| PARAMETER                            | SYMBOL               | MIN. | TYP. | MAX. | UNIT | TEST CONDITION                                       |
|--------------------------------------|----------------------|------|------|------|------|--|
| Common Emitter DC Current Gain       | h <sub>FE</sub>      | 300  |      | 1000 |      | V <sub>CE</sub> = 1V, I <sub>C</sub> = 100 mA        |
| Collector Cut-off Current            | I <sub>CB0</sub>     |      |      | 0.1  | μA   | V <sub>CB</sub> = 30 V, I <sub>E</sub> =0            |
| Emitter Cut-off Current              | I <sub>EBO</sub>     |      |      | 0.1  | μA   | V <sub>EB</sub> = 5 V, I <sub>C</sub> =0             |
| Collector-Base Breakdown Voltage     | BV <sub>CB0</sub>    | 30   |      |      | V    | I <sub>C</sub> = 0.1 mA, I <sub>E</sub> =0           |
| Collector-Emitter Breakdown Voltage  | BV <sub>CEO</sub>    | 20   |      |      | V    | I <sub>C</sub> = 1 mA, I <sub>B</sub> =0             |
| Emitter-Base Breakdown Voltage       | BV <sub>EBO</sub>    | 5    |      |      | V    | I <sub>E</sub> = 0.1 mA, I <sub>C</sub> =0           |
| Collector-Emitter Saturation Voltage | V <sub>CE(sat)</sub> |      |      | 0.55 | V    | I <sub>C</sub> =600 mA, I <sub>B</sub> =60 mA        |
| Base-Emitter Saturation Voltage      | V <sub>BE(sat)</sub> |      |      | 1.2  | V    | I <sub>C</sub> =600 mA, I <sub>B</sub> =60 mA        |
| Gain bandwidth product               | f <sub>T</sub>       | 100  |      |      | MHz  | I <sub>C</sub> = 50 mA, V <sub>CE</sub> = 10 V       |
| Common Base Output Capacitance       | C <sub>ob</sub>      |      | 5    |      | PF   | V <sub>CB</sub> = 10 V, I <sub>E</sub> =0, f = 1 MHz |

■■ h<sub>FE</sub> Classification

| Classification  | B         | C         | D          | E      |
|-----------------|-----------|-----------|------------|--------|
| h <sub>FE</sub> | 300 ~ 500 | 500 ~ 700 | 650 ~ 1000 | > 1000 |