



NPN EPITAXIAL SILICON TRANSISTOR

AUDIO FREQUENCY LOW POWER AMPLIFIER APPLICATIONS.
 DRIVER STAGE AMPLIFIER APPLICATIONS.SWITCHING APPLICATIONS.

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

T_{stg} —Storage Temperature..... -55~150

T_j —Junction Temperature.....150

P_C —Collector Dissipation.....500mW

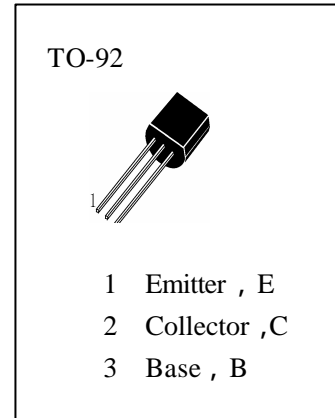
V_{CBO} —Collector-Base Voltage.....35V

V_{CEO} —Collector-Emitter Voltage.....30V

V_{EBO} —Emitter-Base Voltage.....5V

I_C —Collector Current.....500mA

I_B —Base Current..... 100mA



ELECTRICAL CHARACTERISTICS ($T_a=25$)

| Symbol | Characteristics | Min | Typ | Max | Unit | Test Conditions |
|---------------|---------------------------------------|----------|-----|------|---------|--------------------------------------------------|
| ICBO | Collector Cut-off Current | | | 0.1 | μA | $V_{CB}=35V, I_E=0$ |
| IEBO | Emitter Cut-off Current | | | 0.1 | μA | $V_{EB}=5V, I_C=0$ |
| HFE | DC Current Gain | 70 25 | | 400 | | $V_{CE}=1V, I_C=100mA$ $V_{CE}=6V, I_C=400mA$ |
| VBE | Base- Emitter Voltage | | 0.8 | 1 | V | $V_{CE}=1V, I_C=100mA$ |
| $V_{CE(sat)}$ | Collector- Emitter Saturation Voltage | | 0.1 | 0.25 | V | $I_C=100mA, I_B=10mA$ |
| f_T | Transition frequency | | 300 | | MHz | $V_{CE}=6V, I_C=20mA$ |
| Cob | Collector Output capacitance | | 7 | | pF | $V_{CB}=6V, I_E=0,$ $f=1MHZ$ |

hFE Classification

| | | | |
|-----------|------------|------------|---------|
| HFE (1) | 0 | Y | GR |
| | 70—140 | 120—240 | 200—400 |
| HFE (2) | 0 | Y | |
| | 25 (Min) | 40 (Min) | |

