



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

DC8550

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

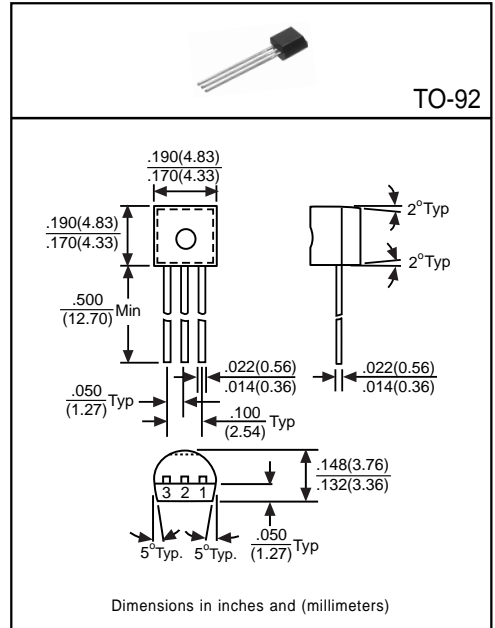
Designed for use in 2W output amplifier of portable radios in class B push-pull operation.

Pinning

- 1 = Emitter
- 2 = Base
- 3 = Collector

Absolute Maximum Ratings(T_A=25°C)

| Characteristic | Symbol | Rating | Unit |
|---|------------------|-------------|------|
| Collector-Base Voltage | V _{CB0} | -40 | V |
| Collector-Emitter Voltage | V _{CE0} | -25 | V |
| Emitter-Base Voltage | V _{EB0} | -6 | V |
| Collector Current | I _C | -1.5 | A |
| Base Current | I _B | -500 | mA |
| Total Power Dissipation | P _D | 1 | W |
| Total Power Dissipation(T _C =25°C) | P _D | 2 | W |
| Junction Temperature | T _J | +150 | °C |
| Storage Temperature | T _{STG} | -55 to +150 | °C |



Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Conditions |
|---|----------------------|-----|-----|------|------|--|
| Collector-Base Breakdown Voltage | BV _{CB0} | -40 | - | - | V | I _C =-100μA |
| Collector-Emitter Breakdown Voltage | BV _{CE0} | -25 | - | - | V | I _C =-2mA |
| Emitter-Base Breakdown Voltage | BV _{EB0} | -6 | - | - | V | I _E =-100μA |
| Collector Cutoff Current | I _{CBO} | - | - | -0.1 | μA | V _{CB} =-35V |
| Emitter Cutoff Current | I _{EBO} | - | - | -0.1 | μA | V _{EB} =-6V |
| Collector-Emitter Saturation Voltage ⁽¹⁾ | V _{CE(sat)} | - | - | -0.5 | V | I _C =-0.8A, I _B =-80mA |
| Base-Emitter Saturation Voltage ⁽¹⁾ | V _{BE(sat)} | - | - | -1.2 | V | I _C =-0.8A, I _B =-80mA |
| Base-Emitter On Voltage ⁽¹⁾ | V _{BE(on)} | - | - | -1 | V | I _C =-10mA, V _{CE} =-1V |
| DC Current Gain ⁽¹⁾ | hFE1 | 45 | - | - | - | I _C =-5mA, V _{CE} =-1V |
| | hFE2 | 85 | - | 500 | - | I _C =-100mA, V _{CE} =-1V |
| | hFE3 | 40 | - | - | - | I _C =-800mA, V _{CE} =-1V |
| Transition Frequency | f _T | 100 | - | - | MHz | I _C =-50mA, V _{CE} =-10V, f=100MHz |

(1) Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

Classification of hFE2

| Rank | B | C | D | E |
|-------|--------|---------|---------|---------|
| Range | 85~160 | 120~200 | 160~300 | 250~500 |