



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

MID32C

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

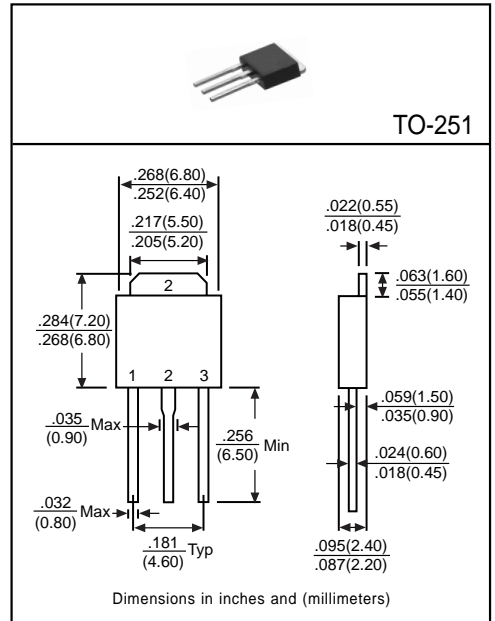
Designed for use in general purpose amplifier and switching applications.

Pinning

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

Absolute Maximum Ratings(T_A=25°C)

| Characteristic | Symbol | Rating | Unit |
|---|------------------|-------------|------|
| Collector-Base Voltage | V _{CB0} | -100 | V |
| Collector-Emitter Voltage | V _{CE0} | -100 | V |
| Emitter-Base Voltage | V _{EB0} | -5 | V |
| Collector Current | I _C | -3 | A |
| Total Power Dissipation(T _C =25°C) | P _D | 15 | 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} | -100 | - | - | V | I _C =-1mA, I _E =0 |
| Collector-Emitter Breakdown Voltage | BV _{CE0} | -100 | - | - | V | I _C =-30mA, I _B =0 |
| Collector Cutoff Current | I _{CES} | - | - | -20 | μA | V _{CE} =-100V, V _{BE} =0 |
| | I _{CEO} | - | - | -50 | μA | V _{CE} =-60V, I _B =0 |
| Emitter Cutoff Current | I _{EBO} | - | - | -1 | mA | V _{EB} =-5V, I _C =0 |
| Collector-Emitter Saturation Voltage ⁽¹⁾ | V _{CE(sat)} | - | - | -1.2 | V | I _C =-3A, I _B =-375mA |
| Base-Emitter On Voltage ⁽¹⁾ | V _{BE(on)} | - | - | -1.8 | V | I _C =-3A, V _{CE} =-4V |
| DC Current Gain ⁽¹⁾ | h _{FE1} | 25 | - | - | - | I _C =-1A, V _{CE} =-4V |
| | h _{FE2} | 10 | - | 50 | - | I _C =-3A, V _{CE} =-4V |
| Transition Frequency | f _T | 3 | - | - | MHz | I _C =-0.5A, V _{CE} =-10V, f=1MHz |

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