



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

DMBTA06

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

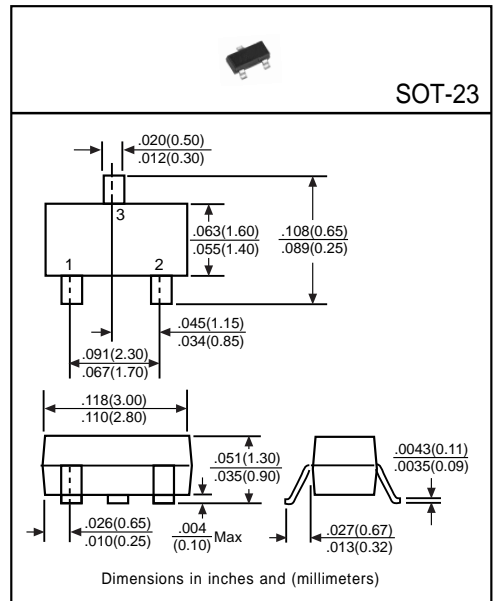
Designed for general purpose amplifier applications.

Pinning

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

Absolute Maximum Ratings(T_A=25°C)

| Characteristic | Symbol | Rating | Unit |
|---------------------------|------------------|-------------|------|
| Collector-Base Voltage | V _{CB0} | 80 | V |
| Collector-Emitter Voltage | V _{CE0} | 80 | V |
| Emitter-Base Voltage | V _{EB0} | 4 | V |
| Collector Current | I _C | 500 | mA |
| Total Power Dissipation | P _D | 225 | mW |
| 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} | 80 | - | - | V | I _C =100μA |
| Collector-Emitter Breakdown Voltage | BV _{CE0} | 80 | - | - | V | I _C =1mA |
| Emitter-Base Breakdown Voltage | BV _{EB0} | 4 | - | - | V | I _E =100μA |
| Collector Cutoff Current | I _{CBO} | - | - | 100 | nA | V _{CB} =80V |
| | I _{CEO} | - | - | 100 | nA | V _{CE} =60V |
| Collector-Emitter Saturation Voltage ⁽¹⁾ | V _{CE(sat)} | - | - | 0.25 | V | I _C =100mA, I _B =10mA |
| Base-Emitter On Voltage | V _{BE(on)} | - | - | 1.2 | V | I _C =100mA, V _{CE} =1V |
| DC Current Gain ⁽¹⁾ | h _{FE1} | 50 | - | - | - | I _C =10mA, V _{CE} =1V |
| | h _{FE2} | 50 | - | - | - | I _C =100mA, V _{CE} =1V |
| Transition Frequency | f _T | 100 | - | - | MHz | I _C =10mA, V _{CE} =2V, f=100MHz |

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