



DC COMPONENTS CO., LTD.
DISCRETE SEMICONDUCTORS

DXT3906

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

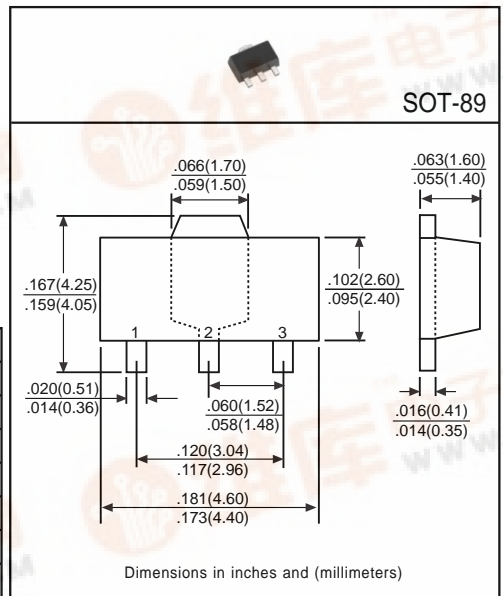
Designed for general purpose switching and amplifier applications.

Pinning

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

Absolute Maximum Ratings (TA=25°C)

| Characteristic | Symbol | Rating | Unit |
|---------------------------|------------------|-------------|------|
| Collector-Base Voltage | V _{CB0} | -40 | V |
| Collector-Emitter Voltage | V _{CE0} | -40 | V |
| Emitter-Base Voltage | V _{EB0} | -5 | V |
| Collector Current | I _C | -200 | mA |
| Total Power Dissipation | P _D | 1 | 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} | -40 | - | - | V | I _C =-1mA |
| Emitter-Base Breakdown Voltage | BV _{EB0} | -5 | - | - | V | I _E =-10μA |
| Collector Cutoff Current | I _{CEX} | - | - | -50 | nA | V _{CE} =-30V, V _{BE} =-3V |
| Collector-Emitter Saturation Voltage ⁽¹⁾ | V _{CE(sat)1} | - | - | -0.25 | V | I _C =-10mA, I _B =-1mA |
| | V _{CE(sat)2} | - | - | -0.4 | V | I _C =-50mA, I _B =-5mA |
| Base-Emitter Saturation Voltage ⁽¹⁾ | V _{BE(sat)1} | -0.65 | - | -0.85 | V | I _C =-10mA, I _B =-1mA |
| | V _{BE(sat)2} | - | - | -0.95 | V | I _C =-50mA, I _B =-5mA |
| DC Current Gain ⁽¹⁾ | h _{FE1} | 60 | - | - | - | I _C =-100μA, V _{CE} =-1V |
| | h _{FE2} | 80 | - | - | - | I _C =-1mA, V _{CE} =-1V |
| | h _{FE3} | 100 | - | 300 | - | I _C =-10mA, V _{CE} =-1V |
| | h _{FE4} | 60 | - | - | - | I _C =-50mA, V _{CE} =-1V |
| | h _{FE5} | 30 | - | - | - | I _C =-100mA, V _{CE} =-1V |
| Transition Frequency | f _T | 250 | - | - | MHz | V _{CE} =-20V, f=100MHz, I _C =-10mA |
| Output Capacitance | C _{ob} | - | - | 4.5 | pF | V _{CB} =-5V, f=1MHz |

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

