

SOT-23 Plastic-Encapsulate Transistors

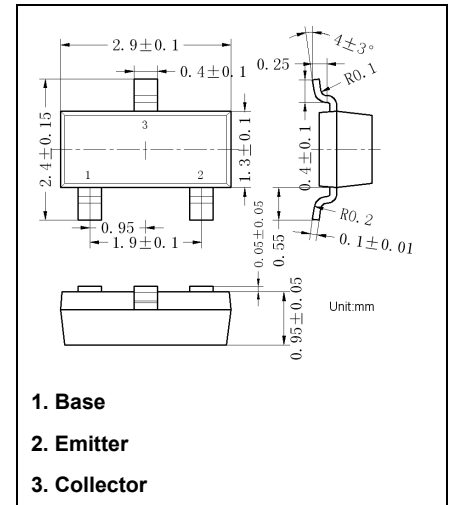
MMBT5401

PNP Transistors

Features

- Complementary to MMBT5551
- Ideal for Medium Power Amplification and Switching

Marking: 2L



Maximum Ratings (T_a=25°C unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|------------------|---|------------|------|
| V _{CB0} | Collector Base Voltage | -160 | V |
| V _{CEO} | Collector Emitter Voltage | -150 | V |
| V _{EBO} | Emitter Base Voltage | -5 | V |
| I _c | Collector Current | -600 | mA |
| P _c | Collector Power Dissipation | 300 | mW |
| T _j | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55 ~ +150 | °C |
| R _{θJA} | Thermal Resistance from Junction to Ambient | 416 | °C/W |

Electrical Characteristics (T_a=25°C unless otherwise specified)

| Symbol | Parameter | Test Conditions | Min | Typ | Max | Unit |
|------------------------|--------------------------------------|--|------|-----|------|------|
| V _{(BR)CBO} | Collector-base breakdown voltage | I _c = -100μA, I _E = 0 | -160 | | | V |
| V _{(BR)CEO} * | Collector-emitter breakdown voltage | I _c = -1mA, I _B = 0 | -150 | | | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _E = -10μA, I _c = 0 | -5 | | | V |
| I _{cBO} | Collector cut-off current | V _{CB} = -120V, I _E = 0 | | | -100 | nA |
| I _{EBO} | Emitter cut-off current | V _{EB} = -4V, I _c = 0 | | | -100 | nA |
| h _{FE(1)} * | DC current gain | V _{CE} = -5V, I _c = -1mA | 80 | | | |
| h _{FE(2)} * | | V _{CE} = -5V, I _c = -10mA | 100 | | 300 | |
| h _{FE(3)} * | | V _{CE} = -5V, I _c = -50mA | 50 | | | |
| V _{CE(sat)} * | Collector-emitter saturation voltage | I _c = -10mA, I _B = -1mA | | | -0.2 | V |
| | | I _c = -50mA, I _B = -5mA | | | -0.5 | V |
| V _{BE(sat)} * | Base-emitter saturation voltage | I _c = -10mA, I _B = -1mA | | | -1 | V |
| | | I _c = -50mA, I _B = -5mA | | | -1 | V |
| f _T | Transition frequency | V _{CE} = -5V, I _c = -10mA, f = 30MHz | 100 | | | MHz |

*Pulse test: pulse width ≤ 300μs, duty cycle ≤ 2.0%

Classification OF h_{FE(2)}

| Rank | L | H |
|-------|---------|---------|
| Range | 100-200 | 200-300 |

Typical Characteristics

