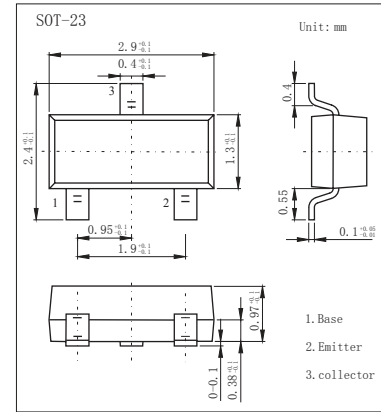


PNP Transistors
MMBT2907A



■ Features

- Epitaxial Planar Die Construction
- Complementary NPN Type Available(MMBT2222A)

■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|---|------------------|------------|------|
| Collector - Base Voltage | V _{CB0} | -60 | V |
| Collector - Emitter Voltage | V _{CE0} | -60 | |
| Emitter - Base Voltage | V _{EB0} | -5 | |
| Collector Current - Continuous | I _C | 600 | mA |
| Power Dissipation | P _D | 250 | mW |
| Thermal resistance from junction to ambient | R _{θJA} | 500 | °C/W |
| Junction Temperature | T _J | 150 | °C |
| Storage Temperature Range | T _{stg} | -55 to 150 | |

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Test conditions | Min | Max | Unit |
|--|----------------------|--|-----|------|------|
| Collector-Base Breakdown Voltage | V _{(BR)CBO} | I _C = -100 μA, I _E = 0 | -60 | | V |
| Collector-Emitter Breakdown Voltage* | V _{(BR)CEO} | I _C = -10 mA, I _B = 0 | -60 | | V |
| Emitter-Base Breakdown Voltage | V _{(BR)EBO} | I _E = -100 μA, I _C = 0 | -5 | | V |
| Collector Cutoff Current | I _{CBO} | V _{CB} = -50 V, I _E = 0 | | -20 | nA |
| Collector Cutoff Current | I _{CEX} | V _{CE} = -30 V, V _{EB(off)} = -0.5V | | -50 | nA |
| DC Current Gain | h _{FE} | V _{CE} = -10V, I _C = -0.1mA | 75 | | |
| | | V _{CE} = -10V, I _C = -1mA | 100 | | |
| | | V _{CE} = -10V, I _C = -10mA | 100 | | |
| | | V _{CE} = -10V, I _C = -150mA | 100 | 300 | |
| | | V _{CE} = -10V, I _C = -500mA | 50 | | |
| Collector-Emitter Saturation Voltage * | V _{CE(sat)} | I _C = -150 mA, I _B = -15 mA | | -0.4 | V |
| | | I _C = -500 mA, I _B = -50 mA | | -1.6 | V |
| Base-Emitter Saturation Voltage * | V _{BE(sat)} | I _C = -150 mA, I _B = -15 mA | | -1.3 | V |
| | | I _C = -500 mA, I _B = -50 mA | | -2.6 | V |
| Current Gain - Bandwidth Product | f _T | V _{CE} = -20V, I _C = -50mA, f = 100MHz | 200 | | MHz |
| Delay Time | t _d | V _{CC} = -30 V, I _C = -150 mA, I _{B1} = -15 mA | | 10 | ns |
| Rise Time | t _r | | | 40 | ns |
| Storage Time | t _s | V _{CC} = -6.0 V, I _C = -150 mA, I _{B1} = I _{B2} = -15 mA | | 80 | ns |
| Fall Time | t _f | | | 30 | ns |

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

■ Marking

| | |
|---------|----|
| Marking | 2F |
|---------|----|

PNP Transistors MMBT2907A

■ Typical Characteristics

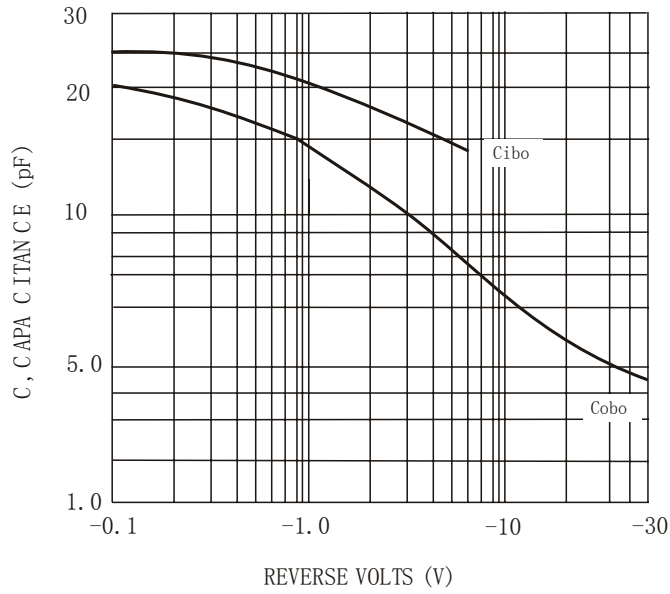


Fig. 1 Typical Capacitance

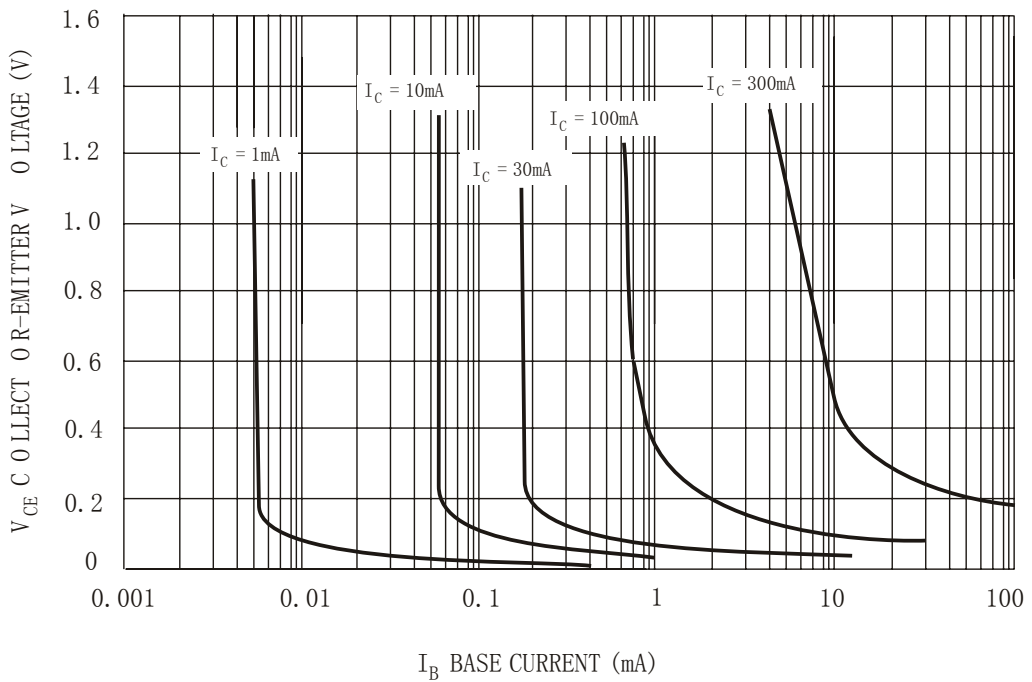


Fig. 2 Typical Collector Saturation Region