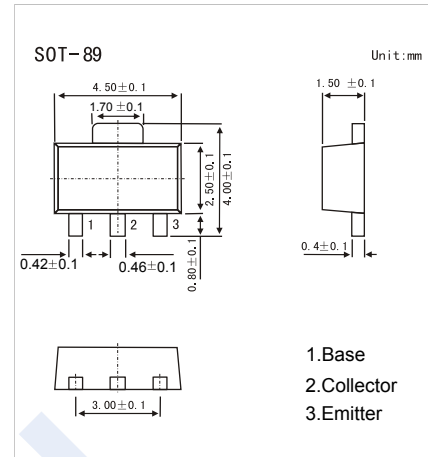


PNP Transistors

2SA1947

■ Features

- High f_T , $f_T=100\text{MHz}(\text{typ})$
- High collector current $I_{CM}=-1.5\text{A}$
- Small package for mounting
- Complements to 2SC5214



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|--------------------------------|-----------|------------|------------------|
| Collector - Base Voltage | V_{CB0} | -30 | V |
| Collector - Emitter Voltage | V_{CE0} | -25 | |
| Emitter - Base Voltage | V_{EB0} | -4 | |
| Collector Current - Continuous | I_C | -1 | A |
| Collector Current - Pulse | I_{CM} | -1.5 | |
| Collector Power Dissipation | P_C | 0.5 | W |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature range | T_{stg} | -55 to 150 | |

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|---|-----|-----|------|---------------|
| Collector- base breakdown voltage | V_{CB0} | $I_C = -100 \mu\text{A}$, $I_E = 0$ | -30 | | | V |
| Collector- emitter breakdown voltage | V_{CE0} | $I_C = -1 \text{mA}$, $R_{BE} = \infty$ | -25 | | | |
| Emitter - base breakdown voltage | V_{EB0} | $I_E = -100 \mu\text{A}$, $I_C = 0$ | -4 | | | |
| Collector-base cut-off current | I_{CB0} | $V_{CB} = -25 \text{V}$, $I_E = 0$ | | | -1 | μA |
| Emitter cut-off current | I_{EB0} | $V_{EB} = -4 \text{V}$, $I_C = 0$ | | | -1 | |
| Collector-emitter saturation voltage | $V_{CE(\text{sat})}$ | $I_C = -500 \text{mA}$, $I_B = -25 \text{mA}$ | | | -0.5 | V |
| Base - emitter saturation voltage | $V_{BE(\text{sat})}$ | $I_C = -500 \text{mA}$, $I_B = -25 \text{mA}$ | | | -1.2 | |
| DC current gain | h_{FE} | $V_{CE} = -1 \text{V}$, $I_C = -500 \text{mA}$ | 55 | | 300 | |
| Transition frequency | f_T | $V_{CE} = -6 \text{V}$, $I_E = 10 \text{mA}$ | | 100 | | MHz |

■ Classification of h_{FE}

| Type | 2SA1947-C | 2SA1947-D | 2SA1947-E |
|---------|-----------|-----------|-----------|
| Range | 55-110 | 90-180 | 150-300 |
| Marking | ABC | ABD | ABE |

PNP Transistors

2SA1947

■ Typical Characteristics

