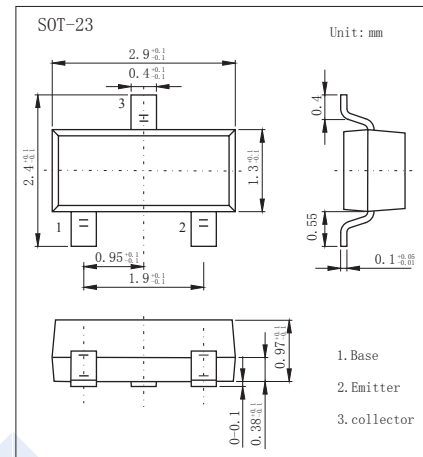


PNP Transistors

2SA1257

■ Features

- High breakdown voltage.
- Small output capacitance.
- Very small-sized package permitting the 2SA1257/2SC3143-applied sets to be made small and slim.



■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|---------------------------|------------------|-------------|------|
| Collector-base voltage | V _{CB0} | -180 | V |
| Collector-emitter voltage | V _{CEO} | -160 | V |
| Emitter-base voltage | V _{EBO} | -5 | V |
| Collector current | I _C | -80 | mA |
| Collector current (pulse) | I _{CP} | -150 | mA |
| Collector dissipation | P _C | 200 | mW |
| Junction temperature | T _J | 125 | °C |
| Storage temperature | T _{stg} | -55 to +125 | °C |

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|------------------------------------------------|------|------|------|------|
| Collector- base breakdown voltage | V _{CB0} | I _C = -100 μA, I _E =0 | -180 | | | V |
| Collector- emitter breakdown voltage | V _{CEO} | I _C = -1 mA, R _{BE} =∞ | -160 | | | |
| Emitter - base breakdown voltage | V _{EBO} | I _E = -100 μA, I _C =0 | -5 | | | |
| Collector-base cut-off current | I _{CB0} | V _{CB} = -120 V, I _E =0 | | | -100 | nA |
| Emitter cut-off current | I _{EBO} | V _{EB} = -4V, I _C =0 | | | -100 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C =-30mA, I _B =- 3mA | | | -0.7 | V |
| Base - emitter saturation voltage | V _{BE(sat)} | I _C =-30mA, I _B =- 3mA | | | -1.2 | |
| Base - emitter voltage | V _{BE} | V _{CE} = -5V, I _C =-10mA | | | -1.5 | |
| DC current gain | h _{FE} | V _{CE} = -5V, I _C = -10mA | 60 | | 270 | |
| Turn-on time | t _{on} | See Test Circuit. | | 0.15 | | us |
| Storage time | t _{stg} | | | 0.95 | | |
| Fall time | t _f | | | 0.15 | | |
| Collector output capacitance | C _{ob} | V _{CB} = -10V, f-1MHz | | 2.4 | 3.2 | pF |
| Transition frequency | f _T | V _{CE} = -10V, I _C = -10mA | | 130 | | MHz |

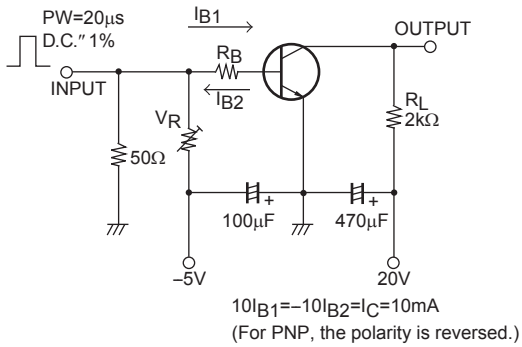
■ Classification of h_{FE}

| Type | 2SA1257-G3 | 2SA1257-G4 | 2SA1257-G5 |
|---------|------------|------------|------------|
| Range | 60-120 | 90-180 | 135-270 |
| Marking | G3 | G4 | G5 |

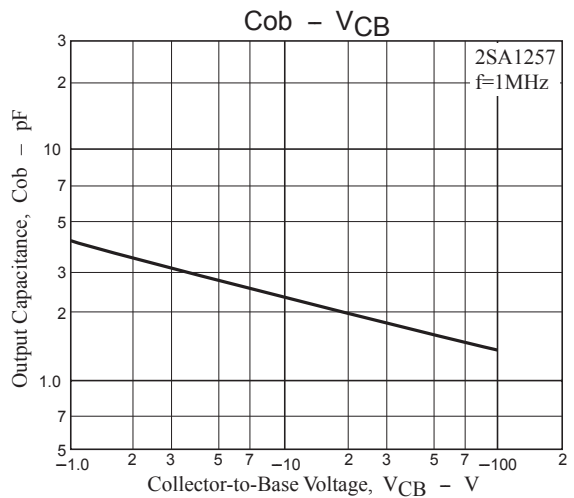
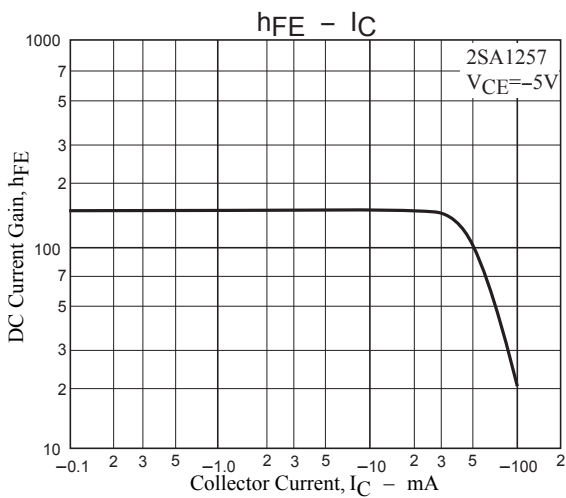
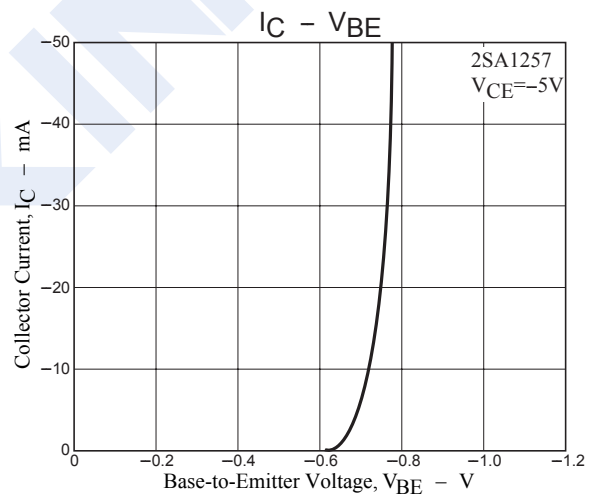
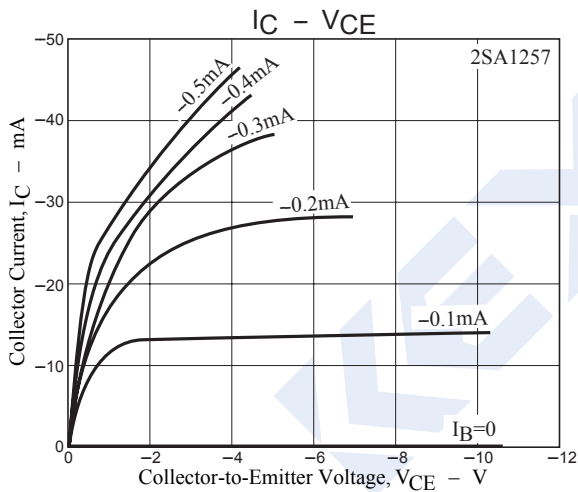
PNP Transistors

2SA1257

Switching Time Test Circuit



Typical Characteristics



PNP Transistors

2SA1257

■ Typical Characteristics

