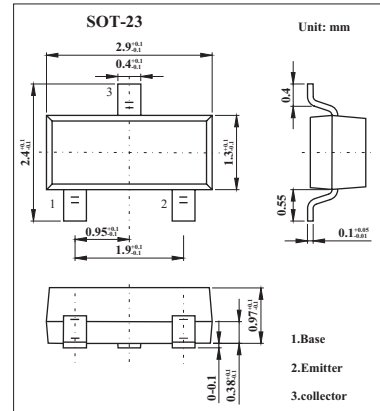


■ Features

- Fast switching speed.
- High gain-bandwidth product.
- Low saturation voltage.



■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|---------------------------|------------------|-------------|------|
| Collector-base voltage | V _{CB0} | -40 | V |
| Collector-emitter voltage | V _{CE0} | -20 | V |
| Emitter-base voltage | V _{EB0} | -5 | V |
| Collector current | I _C | -150 | mA |
| Collector current (pulse) | I _{CP} | -300 | mA |
| Base current | I _B | -30 | mA |
| Collector dissipation | P _C | 200 | mW |
| Junction temperature | T _J | 150 | °C |
| Storage temperature | T _{stg} | -55 to +150 | °C |

2SA1607

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|--|-----|-------|------|------|
| Collector cutoff current | ICBO | V _{CB} = -30V, I _E =0 | | | -0.1 | μA |
| Emitter cutoff current | IEBO | V _{EB} = -4V, I _C =0 | | | -0.1 | μA |
| DC current gain | hFE | V _{CE} = -1V, I _C = -10mA | 60 | | 180 | |
| Gain bandwidth product | f _T | V _{CE} = -10V, I _C = -10mA | | 400 | | MHz |
| Output capacitance | C _{ob} | V _{CB} = -10V, f = 1.0MHz | | 2.9 | | pF |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C = -10mA, I _B = -1mA | | -0.07 | -0.2 | V |
| Base-emitter saturation voltage | V _{BE(sat)} | I _C = -10mA, I _B = -1mA | | -0.75 | -1 | V |
| Collector-base breakdown voltage | V _{(BR)CBO} | I _C = -10μA, I _E = 0 | -40 | | | V |
| Collector-emitter breakdown voltage | V _{(BR)CEO} | I _C = -1mA, R _{BE} = ∞ | -20 | | | V |
| Emitter-base breakdown voltage | V _{(BR)EBO} | I _E = -10μA, I _C = 0 | -5 | | | V |
| Delay time | t _d | | | 14 | 20 | ns |
| Rise time | t _r | | | 11 | 20 | ns |
| Storage time | t _{stg} | | | 80 | 180 | ns |
| Fall time | t _f | | | 16 | 25 | ns |

■ hFE Classification

| Marking | YL | |
|---------|--------|--------|
| Rank | 3 | 4 |
| hFE | 60~120 | 90~180 |