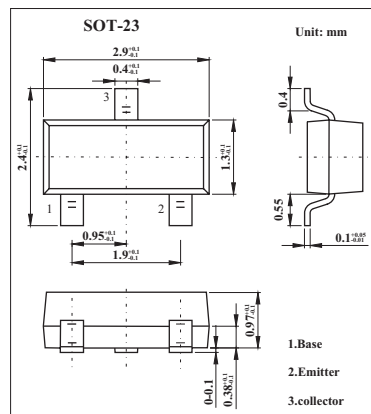


2SA1580

■ Features

- High fr.
- Small reverse transfer capacitance.
- Adoption of FBET process.



■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|---------------------------|------------------|-------------|------|
| Collector-base voltage | V _{CB0} | -70 | V |
| Collector-emitter voltage | V _{CEO} | -60 | V |
| Emitter-base voltage | V _{EBO} | -4 | V |
| Collector current | I _C | -50 | mA |
| Collector current (pulse) | I _{CP} | -100 | mA |
| Collector dissipation | P _C | 200 | mW |
| Junction temperature | T _J | 150 | °C |
| Storage temperature | T _{stg} | -55 to +150 | °C |

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|--|-----|-----|------|------|
| Collector cutoff current | I _{CBO} | V _{CB} = -40V, I _E =0 | | | -0.1 | μA |
| Emitter cutoff current | I _{EBO} | V _{EB} = -3V, I _C =0 | | | -1 | μA |
| DC current gain | h _{FE} | V _{CE} = -10V, I _C = -10mA | 60 | | 270 | |
| Gain bandwidth product | f _T | V _{CE} = -10V, I _C = -10mA | 350 | 700 | | MHz |
| Base-collector time constant | t _{bb,Cc} | V _{CE} = -10V, I _C = -10mA | | 8 | | ps |
| Output capacitance | C _{ob} | V _{CB} = -10V, f = 1.0MHz | | 1.7 | | pF |
| Reverse transfer capacitance | C _{re} | V _{CB} = -10V, f = 1.0MHz | | 1.3 | | pF |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C = -20mA, I _B = -2mA | | | -0.6 | V |
| Base-emitter saturation voltage | V _{BE(sat)} | I _C = -20mA, I _B = -2mA | | | -1 | V |
| Collector-base breakdown voltage | V _{(BR)CBO} | I _C = -10μA, I _E = 0 | -70 | | | V |
| Collector-emitter breakdown voltage | V _{(BR)CEO} | I _C = -1mA, R _{BE} = ∞ | -60 | | | V |
| Emitter-base breakdown voltage | V _{(BR)EBO} | I _E = -10μA, I _C = 0 | -4 | | | V |

■ hFE Classification

| Marking | QL | | |
|---------|--------|--------|---------|
| | 3 | 4 | 5 |
| hFE | 60~120 | 90~180 | 135~270 |