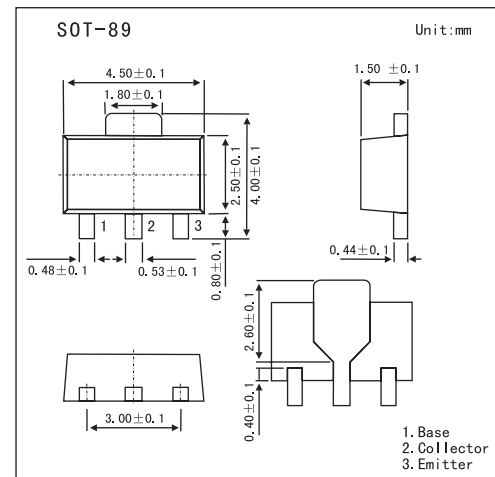


PNP Epitaxial Planar Silicon

2SA1730

■ Features

- Adoption of FBET , MBIT processes.
- Large current capacity.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Small-sized package.

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

| Parameter | Symbol | Rating | Unit |
|---------------------------|-----------|-------------|------------------|
| Collector-base voltage | V_{CB0} | -50 | V |
| Collector-emitter voltage | V_{CE0} | -40 | V |
| Emitter-base voltage | V_{EB0} | -5 | V |
| Collector current | I_C | -3 | A |
| Collector current (pulse) | I_{CP} | -6 | A |
| Collector dissipation * | P_C | 1.5 | W |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

* Mounted on ceramic board (250mm² X 0.8mm).

2SA1730

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit | |
|---|----------------------|---|-----|-------|------|------|----|
| Collector cutoff current | IcBO | V _{CB} = -40V , I _E = 0 | | | -1 | μA | |
| Emitter cutoff current | I _{EBO} | V _{EB} = -3V , I _C = 0 | | | -1 | μA | |
| DC current Gain | h _{FE} | V _{CE} = -2V , I _C = -500mA | 70 | | 280 | | |
| Gain bandwidth product | f _T | V _{CE} = -2V , I _C = -500mA | | 300 | | MHz | |
| Common base output capacitance | C _{ob} | V _{CB} = -10V , f = 1MHz | | 35 | | pF | |
| Collector-to-emitter saturation voltage | V _{CE(sat)} | I _C = -1.5A , I _B = -75mA | | -0.3 | -0.8 | V | |
| Base-to-emitter saturation voltage | V _{BE(sat)} | I _C = -1.5A , I _B = -75mA | | -0.95 | -1.3 | V | |
| Collector-to-base breakdown voltage | V _{(BR)CBO} | I _C = -10μA , I _E = 0 | -50 | | | V | |
| Collector-to-emitter breakdown voltage | V _{(BR)CEO} | I _C = -1mA , R _{BE} = ∞ | -40 | | | V | |
| Emitter-to-base breakdown voltage | V _{(BR)EBO} | I _E = -10μA , I _C = 0 | -5 | | | V | |
| Turn-on time | t _{on} | <p>P.W. = 20 μs D.C. = 1% V_{BE} = 1V I_B = -20 μA I_C = -1.5A Unit (resistance : Ω, capacitance : F)</p> | | 50 | 100 | ns | |
| Storage time | t _{stg} | | | | 120 | 220 | ns |
| Turn-off time | t _{off} | | | | 150 | 300 | ns |

■ hFE Classification

| Marking | AH | | |
|---------|--------|---------|---------|
| | Q | R | S |
| hFE | 70~140 | 100~200 | 140~280 |