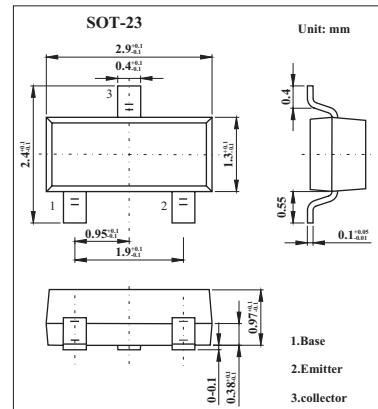


## Low Frequency Transistor

# 2SB1197K

### ■ Features

- Low  $V_{CE(sat)}$ .  $V_{CE(sat)} \leq -0.5V$  ( $I_C / I_B = -0.5A / -50mA$ ) .
- $I_C = -0.8A$ .
- PNP silicon transistor



### ■ Absolute Maximum Ratings $T_a = 25^\circ C$

| Parameter                   | Symbol    | Rating      | Unit |
|-----------------------------|-----------|-------------|------|
| Collector-base Voltage      | $V_{CBO}$ | -40         | V    |
| Collector-emitter Voltage   | $V_{CEO}$ | -32         | V    |
| Emitter-base Voltage        | $V_{EBO}$ | -5          | V    |
| Collector current           | $I_C$     | -0.8        | A    |
| Collector power dissipation | $P_C$     | 0.2         | W    |
| Junction temperature        | $T_j$     | 150         | °C   |
| Storage temperature         | $T_{stg}$ | -55 to +150 | °C   |

### ■ Electrical Characteristics $T_a = 25^\circ C$

| Parameter                            | Symbol        | Testconditons                          | Min | Typ | Max  | Unit    |
|--------------------------------------|---------------|--|-----|-----|------|---------|
| Collector-base breakdown voltage     | $V_{CBO}$     | $I_C = -50 \mu A$                      | -40 |     |      | V       |
| Collector-emitter breakdown voltage  | $V_{CEO}$     | $I_C = -1mA$                           | -32 |     |      | V       |
| Emitter-base breakdown voltage       | $V_{EBO}$     | $I_E = -50 \mu A$                      | -5  |     |      | V       |
| Collector cutoff current             | $I_{CBO}$     | $V_{CB} = -20V$                        |     |     | -0.5 | $\mu A$ |
| Emitter cutoff current               | $I_{EBO}$     | $V_{EB} = -4V$                         |     |     | -0.5 | $\mu A$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = -0.5A, I_B = -50mA$             |     |     | -0.5 | V       |
| DC current transfer ratio            | $h_{FE}$      | $V_{CE} = -3V, I_C = -100mA$           | 120 |     | 390  |         |
| Output Capacitance                   | $C_{ob}$      | $V_{CB} = -10V, I_E = 0A, f = 1MHz$    |     | 12  | 30   | pF      |
| Transition frequency                 | $f_T$         | $V_{CE} = -5V, I_E = 50mA, f = 100MHz$ |     | 200 |      | MHz     |

### ■ hFE Classification

| Marking | AHQ     | AHR     |
|---------|---------|---------|
| Rank    | Q       | R       |
| hFE     | 120~270 | 180~390 |