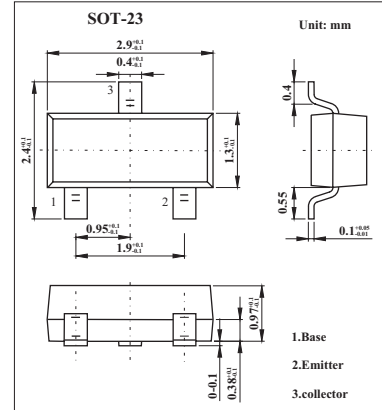


# KC817(BC817)

### ■ Features

- For general AF applications.
- High collector current.
- High current gain.
- Low collector-emitter saturation voltage.



### ■ Absolute Maximum Ratings Ta = 25°C

| Parameter                 | Symbol           | Rating      | Unit |
|---------------------------|------------------|-------------|------|
| Collector-base voltage    | V <sub>CB0</sub> | 50          | V    |
| Collector-emitter voltage | V <sub>CE0</sub> | 45          | V    |
| Emitter-base voltage      | V <sub>EB0</sub> | 5           | V    |
| Collector current (DC)    | I <sub>C</sub>   | 800         | mA   |
| power dissipation         | P <sub>D</sub>   | 310         | mW   |
| Junction temperature      | T <sub>j</sub>   | 150         | °C   |
| Storage temperature       | T <sub>stg</sub> | -65 to +150 | °C   |

### ■ Electrical Characteristics Ta = 25°C

| Parameter                              | Symbol               | Testconditons   | Min | Typ | Max | Unit |
|--|----------------------|---|-----|-----|-----|------|
| Collector-to-base breakdown voltage    | V <sub>CB0</sub>     | I <sub>C</sub> = 10 μA, V <sub>BE</sub> = 0               | 50  |     |     | V    |
| Collector-to-emitter breakdown voltage | V <sub>CE0</sub>     | I <sub>C</sub> = 10 mA, I <sub>B</sub> = 0                | 45  |     |     | V    |
| Emitter-to-base breakdown voltage      | V <sub>EB0</sub>     | I <sub>E</sub> = 10 μA, I <sub>C</sub> = 0                | 5   |     |     | V    |
| Collector cutoff current               | I <sub>CES</sub>     | V <sub>CB</sub> = 25 V, V <sub>BE</sub> = 0               |     |     | 100 | nA   |
| Emitter cutoff current                 | I <sub>EB0</sub>     | V <sub>EB</sub> = 4 V, I <sub>C</sub> = 0                 |     |     | 100 | nA   |
| DC current gain *                      | h <sub>FE</sub>      | I <sub>C</sub> = 100 mA, V <sub>CE</sub> = 1 V            | 100 |     | 630 |      |
|  |                      | I <sub>C</sub> = 300 mA, V <sub>CE</sub> = 1 V            | 60  |     |     |      |
| Collector saturation voltage *         | V <sub>CE(sat)</sub> | I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA           |     |     | 0.7 | V    |
| Base emitter on voltage                | V <sub>BE(on)</sub>  | V <sub>CE</sub> = 1V, I <sub>C</sub> = 300mA              |     |     | 1.2 | V    |
| Output Capacitance                     | C <sub>ob</sub>      | V <sub>CB</sub> = 10V, f = 1MHz                           |     |     | 12  | pF   |
| Transition frequency                   | f <sub>T</sub>       | I <sub>C</sub> = 10 mA, V <sub>CE</sub> = 5 V, f = 50 MHz |     | 100 |     | MHz  |

\* Pulsed: PW ≤ 350 μs, duty cycle ≤ 2%

### ■ Marking

| NO.     | KC817-16 | KC817-25 | KC817-40 |
|---------|----------|----------|----------|
| Marking | 8FA      | 8FB      | 8FC      |
| hFE     | 100~250  | 160~400  | 250~630  |