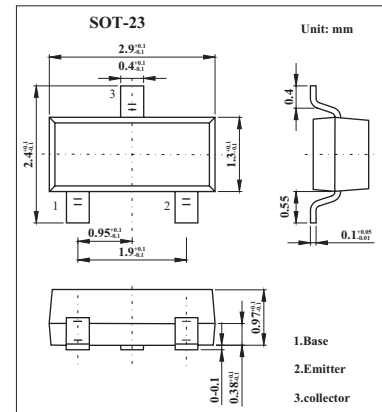


PNP Silicon AF Transistors

KC808A(BC808A)

■ Features

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

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

| Parameter | Symbol | Rating | Unit |
|---------------------------|-----------|-------------|------------------|
| Collector-base voltage | V_{CBO} | -30 | V |
| Collector-emitter voltage | V_{CEO} | -25 | V |
| Emitter-base voltage | V_{EBO} | -5 | V |
| Collector current (DC) | I_C | -500 | mA |
| Peak collector current | I_{CM} | -1 | A |
| Base current | I_B | -100 | mA |
| Total power dissipation | P_{tot} | 310 | mW |
| Storage temperature | T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|--|---------------|---|-----|-----|------|---------------|
| Collector-to-base breakdown voltage | V_{CBO} | $I_C = -10 \mu\text{A}, I_E = 0$ | -30 | | | V |
| Collector-to-emitter breakdown voltage | V_{CEO} | $I_C = -10 \text{mA}, I_B = 0$ | -25 | | | V |
| Emitter-to-base breakdown voltage | V_{EBO} | $I_E = -10 \mu\text{A}, I_C = 0$ | -5 | | | V |
| Collector cutoff current | I_{CBO} | $V_{CB} = -25 \text{V}, I_E = 0$ | | | -100 | nA |
| | | $V_{CB} = -25 \text{V}, I_E = 0, T_A = 150^\circ\text{C}$ | | | -50 | μA |
| Emitter cutoff current | I_{EBO} | $V_{EB} = -4 \text{V}, I_C = 0$ | | | -100 | nA |
| DC current gain * | KC808A-16 | $I_C = -100 \text{mA}, V_{CE} = -1 \text{V}$ | 100 | 160 | 250 | |
| | KC808A-25 | | 160 | 250 | 400 | |
| | KC808A-40 | | 250 | 350 | 630 | |
| Collector saturation voltage * | $V_{CE(sat)}$ | $I_C = -500 \text{mA}, I_B = -50 \text{mA}$ | | | -0.7 | V |
| Base to emitter voltage * | $V_{BE(sat)}$ | $I_C = -500 \text{mA}, I_B = -50 \text{mA}$ | | | -1.2 | V |
| Collector-base capacitance | C_{cb} | $V_{CB} = -10 \text{V}, f = 1 \text{MHz}$ | | 10 | | pF |
| Emitter-base capacitance | C_{eb} | $V_{EB} = -0.5 \text{V}, f = 1 \text{MHz}$ | | 60 | | pF |
| Transition frequency | f_T | $I_C = -50 \text{mA}, V_{CE} = -5 \text{V}, f = 100 \text{MHz}$ | | 200 | | MHz |

* Pulsed: $PW \leq 350 \mu\text{s}$, duty cycle $\leq 2\%$

■ Marking

| NO. | KC808A-16 | KC808A-25 | KC808A-40 |
|---------|-----------|-----------|-----------|
| Marking | 5E | 5F | 5G |