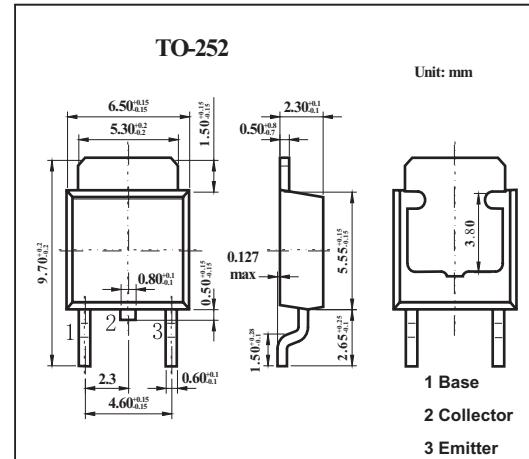


**Silicon PNP Epitaxial Planar Type****2SB968****■ Features**

- Possible to solder the radiation fin directly to printed circuit board.
- High collector-emitter voltage V<sub>CCEO</sub>.
- Large collector power dissipation P<sub>c</sub>.

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

| Parameter                   | Symbol            | Rating      | Unit |
|-----------------------------|-------------------|-------------|------|
| Collector-base voltage      | V <sub>CBO</sub>  | -50         | V    |
| Collector-emitter voltage   | V <sub>CCEO</sub> | -40         | V    |
| Emitter-base voltage        | V <sub>EBO</sub>  | -5          | V    |
| Collector current           | I <sub>c</sub>    | -1.5        | A    |
| Peak collector current      | I <sub>CP</sub>   | -3          | A    |
| Collector power dissipation | P <sub>c</sub>    | 10          | W    |
| Junction temperature        | T <sub>j</sub>    | 150         | °C   |
| Storage temperature         | T <sub>stg</sub>  | -55 to +150 | °C   |

**■ Electrical Characteristics Ta = 25°C**

| Parameter                            | Symbol               | Testconditons   | Min | Typ | Max  | Unit |
|--------------------------------------|----------------------|---|-----|-----|------|------|
| Collector-base voltage               | V <sub>CBO</sub>     | I <sub>c</sub> = -1 mA, I <sub>E</sub> = 0                    | -50 |     |      | V    |
| Collector-emitter voltage            | V <sub>CCEO</sub>    | I <sub>c</sub> = -2 mA, I <sub>B</sub> = 0                    | -40 |     |      | V    |
| Collector-base cutoff current        | I <sub>CBO</sub>     | V <sub>CB</sub> = -20 V, I <sub>E</sub> = 0                   |     |     | -1   | μA   |
| Collector cutoff current             | I <sub>CEO</sub>     | V <sub>CE</sub> = -10 V, I <sub>B</sub> = 0                   |     |     | -100 | μA   |
| Emitter-base cutoff current          | I <sub>EBO</sub>     | V <sub>EB</sub> = -5 V, I <sub>c</sub> = 0                    |     |     | -10  | μA   |
| Forward current transfer ratio       | h <sub>FE</sub>      | V <sub>CE</sub> = -5 V, I <sub>c</sub> = -1 A                 | 80  | 220 |      | V    |
|                                      |                      | V <sub>CE</sub> = -5 V, I <sub>c</sub> = -1mA                 | 10  |     |      |      |
| Collector-emitter saturation voltage | V <sub>CE(sat)</sub> | I <sub>c</sub> = -1.5 A, I <sub>B</sub> = -0.15 A             |     |     | -1   | V    |
| Base-emitter saturation voltage      | V <sub>BE(sat)</sub> | I <sub>c</sub> = -2 A, I <sub>B</sub> = -0.2 A                |     |     | -1.5 | V    |
| Transition frequency                 | f <sub>T</sub>       | V <sub>CE</sub> = -5 V, I <sub>c</sub> = -0.5 A , f = 200 MHz |     | 150 |      | MHz  |
| Collector output capacitance         | C <sub>ob</sub>      | V <sub>CB</sub> = -20V , I <sub>E</sub> = 0 , f = 1.0MHz      |     | 45  |      | pF   |

**■ hFE Classification**

| Rank            | Q      | R       |
|-----------------|--------|---------|
| h <sub>FE</sub> | 80~160 | 120~220 |