

# Power Transistor(400V,0.5A)

## 2SD2568

### ●Features

- High breakdown voltage.(BV<sub>CEO</sub>=400V)

### ●Absolute maximum ratings (Ta = 25°C)

| Parameter                   | Symbol           | Limits     | Unit       |
|-----------------------------|------------------|------------|------------|
| Collector-base voltage      | V <sub>CBO</sub> | 400        | V          |
| Collector-emitter voltage   | V <sub>CEO</sub> | 400        | V          |
| Emitter-base voltage        | V <sub>EBO</sub> | 7          | V          |
| Collector current           | I <sub>c</sub>   | 0.5        | A          |
| Collector power dissipation | P <sub>c</sub>   | 10         | W(Tc=25°C) |
| Junction temperature        | T <sub>j</sub>   | 150        | °C         |
| Storage temperature         | T <sub>stg</sub> | -55 ~ +150 | °C         |

### ●Packaging specifications and h<sub>FE</sub>

|                              |         |
|------------------------------|---------|
| Type                         | 2SD2568 |
| Package                      | CPT3    |
| h <sub>FE</sub>              | PQ      |
| Code                         | TL      |
| Basic ordering unit (pieces) | 2500    |

### ●Electrical characteristics (Ta = 25°C)

| Parameter                            | Symbol               | Min. | Typ. | Max. | Unit | Conditions  |
|--------------------------------------|----------------------|------|------|------|------|---|
| Collector-base breakdown voltage     | BV <sub>CBO</sub>    | 400  | —    | —    | V    | I <sub>c</sub> = 50μA                                     |
| Collector-emitter breakdown voltage  | BV <sub>CEO</sub>    | 400  | —    | —    | V    | I <sub>c</sub> = 1mA                                      |
| Emitter-base breakdown voltage       | BV <sub>EBO</sub>    | 7    | —    | —    | V    | I <sub>e</sub> = 50μA                                     |
| Collector cutoff current             | I <sub>cbo</sub>     | —    | —    | 10   | μA   | V <sub>CB</sub> = 400V                                    |
| Emitter cutoff current               | I <sub>ebo</sub>     | —    | —    | 10   | μA   | V <sub>EB</sub> = 6V                                      |
| Collector-emitter saturation voltage | V <sub>CE(sat)</sub> | —    | 0.05 | 0.5  | V    | I <sub>c</sub> = 100mA , I <sub>b</sub> = 10mA            |
| Base-emitter saturation voltage      | V <sub>BE(sat)</sub> | —    | —    | 1.5  | V    | I <sub>c</sub> = 100mA , I <sub>b</sub> = 10mA            |
| DC current transfer ratio            | h <sub>FE</sub>      | 82   | —    | 270  | —    | V <sub>CE</sub> /I <sub>c</sub> = 5V/50mA                 |
| Transition frequency                 | f <sub>T</sub>       | —    | 13.5 | —    | MHz  | V <sub>CE</sub> = 5V , I <sub>e</sub> = -50mA , f = 10MHz |
| Output capacitance                   | C <sub>ob</sub>      | —    | 8    | —    | pF   | V <sub>CB</sub> = 10V , I <sub>e</sub> = 0A , f = 1MHz    |