

## Silicon PNP Transistor

## 2SB768

## ■ Features

- High Voltage:  $V_{CB0} = -150V$

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

| Parameter                                     | Symbol    | Rating     | Unit       |
|---|-----------|------------|------------|
| Collector-to-Base Voltage                     | $V_{CB0}$ | -200       | V          |
| Collector-to-Emitter Voltage                  | $V_{CEO}$ | -150       | V          |
| Emitter-to-Base Voltage                       | $V_{EBO}$ | -5         | V          |
| Collector Current                             | $I_c$     | -2         | A          |
| Collector Current (Pulse) *1                  | $I_{CP}$  | -3         | A          |
| Total Power Dissipation *2 $T_a = 25^\circ C$ | $P_T$     | 2          | W          |
| Junction Temperature                          | $T_j$     | 150        | $^\circ C$ |
| Storage Temperature                           | $T_{stg}$ | -55 to 150 | $^\circ C$ |

\*1  $PW \leq 10ms$ , Duty Cycle  $\leq 50\%$

\*2 when mounted on ceramic substrate of  $7.5cm^2 \times 0.7mm$

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

| Parameter                                 | Symbol        | Test conditions               | Min | Typ   | Max  | Unit    |
|---|---------------|-------------------------------|-----|-------|------|---------|
| Collector Cutoff Current                  | $I_{CB0}$     | $V_{CB} = -150V, I_E = 0$     |     |       | -50  | $\mu A$ |
| Emitter Cutoff Current                    | $I_{EBO}$     | $V_{EB} = -4V, I_c = 0$       |     |       | -50  | $\mu A$ |
| DC Current Gain *                         | $h_{FE}$      | $V_{CE} = -10V, I_c = -0.4A$  | 40  | 80    | 200  |         |
| Collector-to-Emitter Saturation Voltage * | $V_{CE(sat)}$ | $I_c = -500mA, I_B = -50mA$   |     | -0.15 | -1.0 | V       |
| Gain Bandwidth Product                    | $f_T$         | $V_{CE} = -10V, I_E = -0.4mA$ |     | 10    |      | MHz     |

\* Pulsed :  $p_w \leq 350\mu s$ , Duty Cycle  $\leq 2\%$

■  $h_{FE}$  Classification

| Marking  | M        | L         | K          |
|----------|----------|-----------|------------|
| $h_{FE}$ | 40 to 80 | 60 to 120 | 100 to 200 |