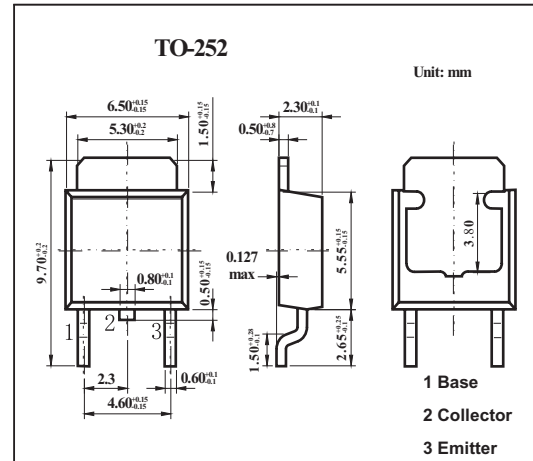


Silicon Transistor

2SA1400-Z



■ Features

- High Voltage: $V_{CE0} = -400V$
- High speed: $t_r \leq 1.0\mu s$

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

| Parameter | Symbol | Rating | Unit |
|---|-----------|------------|------------|
| Collector to Base Voltage | V_{CB0} | -400 | V |
| Collector to Emitter Voltage | V_{CE0} | -400 | V |
| Emitter to Base Voltage | V_{EB0} | -7 | V |
| Collector Current (DC) | I_C | -0.5 | A |
| Collector Current (Pulse) *1 | I_C | -1 | A |
| Total power Dissipation ($T_a = 25^\circ C$) *2 | P_T | 2 | W |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | -55 to 150 | $^\circ C$ |

*1 $p_w \leq 300\mu s$, Duty Cycle $\leq 10\%$

*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} | $V_{CB} = -400V, I_E = 0$ | | | -100 | μA |
| Emitter Cutoff Current | I_{EB0} | $V_{EB} = -5V, I_C = 0$ | | | -10 | V |
| DC Current Gain* | h_{FE} | $V_{CE} = -5V, I_C = -50mA$ | 30 | | 200 | |
| Collector Saturation Voltage * | $V_{CE(sat)}$ | $I_C = -100mA, I_B = -10mA$ | | | -1 | V |
| Base Saturation Voltage * | $V_{BE(sat)}$ | $I_C = -100mA, I_B = -10mA$ | | | -1.2 | V |
| Turn-on Time | t_{on} | $I_C = -100mA, R_L = 1.5K\Omega$ | | | 1 | μs |
| Storage Time | t_{stg} | $I_{B1} = -I_{B2} = -10mA, V_{CC} = -150V$ | | | 5 | |
| Fall time | t_f | $PW \leq 50\mu s, \text{Duty Cycle} \leq 2\%$ | | | 1 | |

* $PW \leq 350\mu s, \text{Duty Cycle} \leq 2\%$

■ hFE Classification

| Marking | N | M | L | K |
|---------|----------|----------|-----------|------------|
| hFE | 30 to 60 | 40 to 80 | 60 to 120 | 100 to 200 |