

isc Silicon NPN Power Transistor

2SD310

DESCRIPTION

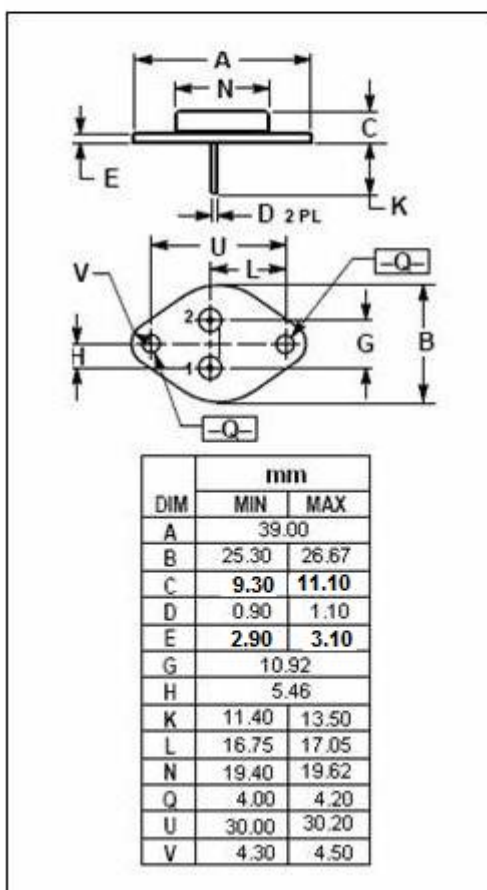
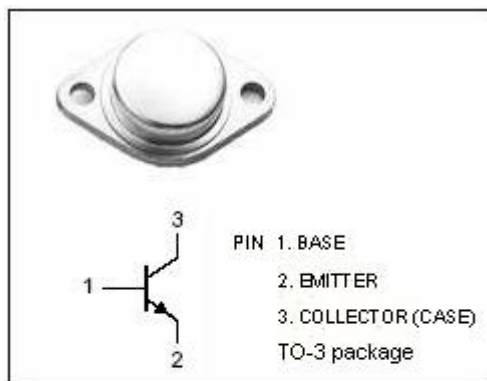
- High Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V$ (Min)
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power switching
- Power amplification
- Power driver

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ C$)

| SYMBOL | PARAMETER | MAX | UNIT |
|-----------|---|---------|------------|
| V_{CBO} | Collector-Base Voltage | 800 | V |
| V_{CEO} | Collector-Emitter Voltage | 400 | V |
| V_{EBO} | Emitter-Base Voltage | 10 | V |
| I_C | Collector Current-Continuous | 15 | A |
| I_B | Base Current-Continuous | 6 | A |
| P_C | Collector Power Dissipation @ $T_c = 25^\circ C$ | 150 | W |
| T_j | Junction Temperature | 150 | $^\circ C$ |
| T_{stg} | Storage Temperature Range | -65~150 | $^\circ C$ |



isc Silicon NPN Power Transistor**2SD310****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------|--------------------------------------|---|-----|------|-----|------|
| $V_{CEO(SUS)}$ | Collector-Emitter Sustaining Voltage | $I_C = 50\text{mA}; I_B = 0$ | 400 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = 6\text{A}; I_B = 1.2\text{A}$ | | | 1.2 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C = 6\text{A}; I_B = 1.2\text{A}$ | | | 1.5 | V |
| h_{FE-1} | DC Current Gain | $I_C = 1\text{A}; V_{CE} = 5\text{V}$ | 15 | | 50 | |
| h_{FE-2} | DC Current Gain | $I_C = 7.5\text{A}; V_{CE} = 5\text{V}$ | 10 | | | |
| I_{CBO} | Collector Cutoff Current | $V_{CB} = 800\text{V}; I_E = 0$ | | | 0.1 | mA |
| I_{CEO} | Collector Cutoff Current | $V_{CE} = 400\text{V}; I_B = 0$ | | | 0.5 | mA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB} = 5\text{V}; I_C = 0$ | | | 0.1 | mA |

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