

## isc Silicon PNP Power Transistor

## 2SA1943N

### DESCRIPTION

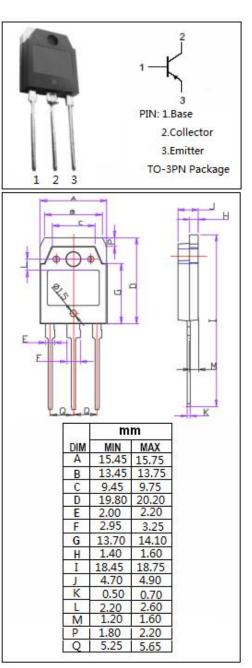
- High Current Capability
- High Power Dissipation
- · High Collector-Emitter Breakdown Voltage-
  - : V<sub>(BR)CEO</sub>= -230V(Min)
- Complement to Type 2SC5200N
- · Minimum Lot-to-Lot variations for robust device performance and reliable operation

#### **APPLICATIONS**

- · Power amplifier applications
- Recommend for 100W high fidelity audio frequency amplifier output stage applications

| SYMBOL           | PARAMETER  | VALUE   | UNIT |  |
|------------------|--|---------|------|--|
| Vсво             | Collector-Base Voltage                               | -230    | V    |  |
| V <sub>CEO</sub> | Collector-Emitter Voltage                            | -230    | v    |  |
| V <sub>EBO</sub> | Emitter-Base Voltage                                 | -5      | V    |  |
| lc               | Collector Current-Continuous                         | -15     | А    |  |
| I <sub>B</sub>   | Base Current-Continuous                              | -1.5    | А    |  |
| Pc               | Collector Power Dissipation<br>@ T <sub>C</sub> =25℃ | 150     | W    |  |
| TJ               | Junction Temperature                                 | 150     | °C   |  |
| T <sub>stg</sub> | Storage Temperature Range                            | -55~150 | Ĉ    |  |

## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)





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## **ELECTRICAL CHARACTERISTICS**

#### $T_{\text{C}}\text{=}25^{\circ}\!\!\!\!\mathrm{C}$ unless otherwise specified

| SYMBOL               | PARAMETER                            | CONDITIONS                                     | MIN  | TYP. | МАХ  | UNIT |
|----------------------|--------------------------------------|--|------|------|------|------|
| V <sub>(BR)CEO</sub> | Collector-Emitter Breakdown Voltage  | I <sub>C</sub> = -50mA ; I <sub>B</sub> = 0    | -230 |      |      | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = -8.0A; I <sub>B</sub> =- 0.8A |      |      | -3.0 | V    |
| V <sub>BE(on)</sub>  | Base-Emitter On Voltage              | I <sub>C</sub> = -7A ; V <sub>CE</sub> =-5V    |      |      | -1.5 | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> = -230V ; I <sub>E</sub> = 0   |      |      | -5   | μA   |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> = -5V; I <sub>C</sub> = 0      |      |      | -5   | μA   |
| h <sub>FE-1</sub>    | DC Current Gain                      | I <sub>C</sub> = -1A ; V <sub>CE</sub> = -5V   | 80   |      | 160  |      |
| h <sub>FE-2</sub>    | DC Current Gain                      | I <sub>C</sub> = -7A ; V <sub>CE</sub> = -5V   | 35   |      |      |      |

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