

**isc Silicon PNP Power Transistor**
**2SB966**
**DESCRIPTION**

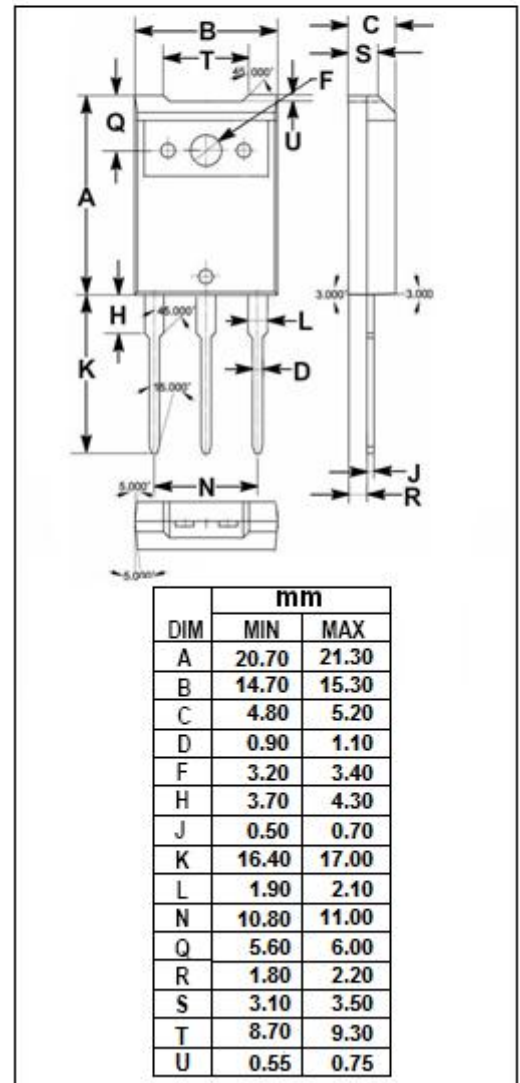
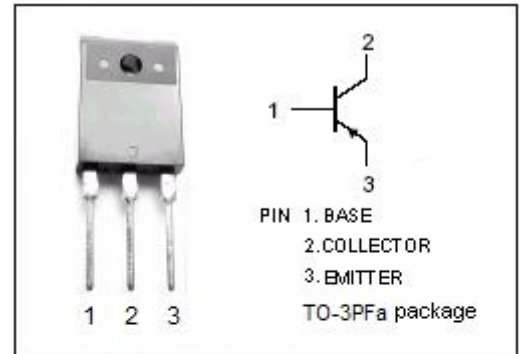
- Low Collector Saturation Voltage  
:  $V_{CE(sat)} = -0.65V(Typ) @ I_C = -5.0A$
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -120V(Min)$
- Complement to Type 2SD1289
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Audio frequency power amplifier applications

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

| SYMBOL    | PARAMETER                                     | VALUE   | UNIT       |
|-----------|---|---------|------------|
| $V_{CBO}$ | Collector-Base Voltage                        | -120    | V          |
| $V_{CEO}$ | Collector-Emitter Voltage                     | -120    | V          |
| $V_{EBO}$ | Emitter-Base Voltage                          | -5      | V          |
| $I_C$     | Collector Current-Continuous                  | -8      | A          |
| $I_{CP}$  | Collector Current-Pulse                       | -12     | A          |
| $P_C$     | Total Power Dissipation<br>@ $T_c=25^\circ C$ | 80      | W          |
| $T_J$     | Junction Temperature                          | 150     | $^\circ C$ |
| $T_{stg}$ | Storage Temperature Range                     | -55~150 | $^\circ C$ |



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**ELECTRICAL CHARACTERISTICS**

 T<sub>c</sub>=25°C unless otherwise specified

| SYMBOL                               | PARAMETER                            | CONDITIONS                                      | MIN | TYP   | MAX  | UNIT |
|--------------------------------------|--------------------------------------|---|-----|-------|------|------|
| V <sub>CE(sat)</sub> <sup>NOTE</sup> | Collector-Emitter Saturation Voltage | I <sub>C</sub> = -5.0A; I <sub>B</sub> = -0.5A  |     | -0.65 | -1.5 | V    |
| V <sub>BE(sat)</sub> <sup>NOTE</sup> | Base-Emitter Saturation Voltage      | I <sub>C</sub> = -5.0A; I <sub>B</sub> = -0.5A  |     | -1.25 | -2.0 | V    |
| I <sub>EBO</sub>                     | Emitter Cutoff Current               | V <sub>EB</sub> = -5V; I <sub>C</sub> = 0       |     |       | -50  | μ A  |
| I <sub>CBO</sub>                     | Collector Cutoff Current             | V <sub>CB</sub> = -120V; I <sub>E</sub> = 0     |     |       | -50  | μ A  |
| h <sub>FE1</sub> <sup>NOTE</sup>     | DC Current Gain                      | I <sub>C</sub> = -1A; V <sub>CE</sub> = -5V     | 60  |       | 320  |      |
| h <sub>FE2</sub> <sup>NOTE</sup>     | DC Current Gain                      | I <sub>C</sub> = -50mA; V <sub>CE</sub> = -5V   | 40  |       |      |      |
| f <sub>T</sub>                       | Transition frequency                 | V <sub>CE</sub> =-5V ,I <sub>C</sub> =-1A       |     | 65    |      | MHz  |
| C <sub>ob</sub>                      | Collector output capacitance         | V <sub>CB</sub> =-10V ,I <sub>E</sub> =0,f=1MHz |     | 200   |      | pF   |

NOTE:Pulse test PW≤350us,duty cycle ≤2%

**◆ h<sub>FE1</sub> Classifications**

| R      | Q       | P       |
|--------|---------|---------|
| 60-120 | 100-200 | 160-320 |

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