

# **isc** Silicon PNP Power Transistor

#### **DESCRIPTION**

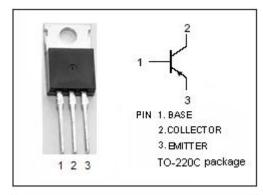
- DC Current Gain-
- :  $h_{FE}$  = 20-100@  $I_{C}$  = -2.5A
- · Collector-Emitter Sustaining Voltage-
  - : V<sub>CEO(SUS)</sub>= -60V(Min)
- Complement to Type 2N6130
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

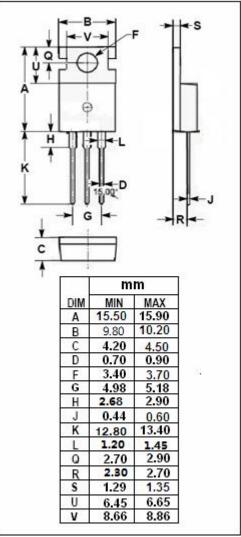
### **APPLICATIONS**

 Designed for use in general-purpose amplifier and switching applications

## ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

| SYMBOL           | PARAMETER  | VALUE   | UNIT       |
|------------------|--|---------|------------|
| V <sub>СВО</sub> | Collector-Base Voltage                           | -60     | V          |
| V <sub>CEO</sub> | Collector-Emitter Voltage                        | -60     | V          |
| V <sub>ЕВО</sub> | Emitter-Base Voltage -5                          |         | V          |
| lc               | Collector Current-Continuous                     | -7      | Α          |
| l <sub>Β</sub>   | Base Current                                     | -2      | Α          |
| Pc               | Collector Power Dissipation $T_C=25^{\circ}C$ 50 |         | W          |
| T <sub>j</sub>   | Junction Temperature                             | 150     | $^{\circ}$ |
| T <sub>stg</sub> | Storage Temperature Range                        | -65~150 | $^{\circ}$ |







## **isc Silicon PNP Power Transistor**

2N6133

#### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=25℃ unless otherwise specified

| SYMBOL                | PARAMETER                            | CONDITIONS                                     | MIN | MAX  | UNIT |
|-----------------------|--------------------------------------|--|-----|------|------|
| V <sub>CEO(SUS)</sub> | Collector-Emitter Sustaining Voltage | I <sub>C</sub> = -30mA; I <sub>B</sub> = 0     | -60 |      | V    |
| V <sub>CE(sat)</sub>  | Collector-Emitter Saturation Voltage | I <sub>C</sub> = -7A; I <sub>B</sub> = -1.4A   |     | -1.4 | V    |
| V <sub>BE(on)</sub>   | Base-Emitter On Voltage              | I <sub>C</sub> = -7A; V <sub>CE</sub> = -4V    |     | -3.0 | V    |
| I <sub>CBO</sub>      | Collector Cutoff Current             | V <sub>CB</sub> = -60V; I <sub>E</sub> = 0     |     | -0.1 | mA   |
| I <sub>CEO</sub>      | Collector Cutoff Current             | V <sub>CE</sub> = -60V; I <sub>B</sub> = 0     |     | -1.0 | mA   |
| I <sub>EBO</sub>      | Emitter Cutoff Current               | V <sub>EB</sub> = -5V; I <sub>C</sub> = 0      |     | -1.0 | mA   |
| h <sub>FE-1</sub>     | DC Current Gain                      | I <sub>C</sub> = -2.5A ; V <sub>CE</sub> = -4V | 20  | 100  |      |
| h <sub>FE-2</sub>     | DC Current Gain                      | I <sub>C</sub> = -7A; V <sub>CE</sub> = -4V    | 5   |      |      |
| fτ                    | Current-Gain—Bandwidth Product       | I <sub>C</sub> = -0.5A ; V <sub>CE</sub> = -4V | 2.5 |      | MHz  |

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