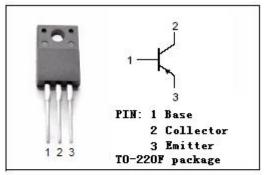


# isc Silicon PNP Power Transistor

### **DESCRIPTION**

- · Collector-Emitter Breakdown Voltage-
  - : V<sub>(BR)CEO</sub>= -60V(Min)
- · Collector Power Dissipation-
  - : P<sub>C</sub>= 25 W@ T<sub>C</sub>= 25℃
- · Low Collector Saturation Voltage-
- :  $V_{CE(sat)} = -1.5V(Max)@ (I_C = -2A, I_B = -0.2A)$
- Complement to Type 2SD2012
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

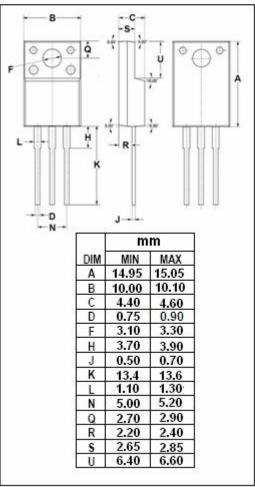


### **APPLICATIONS**

• Designed for audio frequency power amplifier applications.

## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| SYMBOL           | PARAMETER  | VALUE   | UNIT         |  |
|------------------|--|---------|--------------|--|
| V <sub>CBO</sub> | Collector-Base Voltage                               |         | V            |  |
| V <sub>CEO</sub> | Collector-Emitter Voltage                            | -60     | V            |  |
| V <sub>EBO</sub> | Emitter-Base Voltage                                 | -7      | V            |  |
| Ic               | Collector Current-Continuous                         | -3      | А            |  |
| I <sub>B</sub>   | Base Current-Continuous                              | -0.5    | Α            |  |
| P <sub>C</sub>   | Collector Power Dissipation<br>@T <sub>a</sub> =25°C | 2       | W            |  |
|                  | Collector Power Dissipation<br>@Tc=25°C              | 25      |              |  |
| TJ               | Junction Temperature                                 | 150     | $^{\circ}$ C |  |
| T <sub>stg</sub> | Storage Temperature                                  | -55~150 | $^{\circ}$ C |  |





## isc Silicon PNP Power Transistor

2SB1375

### ELECTRICAL CHARACTERISTICS

### Tj=25℃ unless otherwise specified

| SYMBOL               | PARAMETER                            | CONDITIONS   | MIN | TYP. | MAX  | UNIT |
|----------------------|--------------------------------------|--|-----|------|------|------|
| V <sub>(BR)CEO</sub> | Collector-Emitter Breakdown 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> = -2A; I <sub>B</sub> = -0.2A                         |     |      | -1.5 | V    |
| V <sub>BE(on)</sub>  | Base-Emitter On Voltage              | I <sub>C</sub> = -0.5A ; V <sub>CE</sub> = -5V                       |     |      | -1.0 | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> = -60V ; I <sub>E</sub> = 0                          |     |      | -10  | μА   |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> = -7V; I <sub>C</sub> = 0                            |     |      | -10  | μА   |
| h <sub>FE-1</sub>    | DC Current Gain                      | I <sub>C</sub> = -0.5A ; V <sub>CE</sub> = -5V                       | 100 |      | 320  |      |
| h <sub>FE-2</sub>    | DC Current Gain                      | I <sub>C</sub> = -2A; V <sub>CE</sub> = -5V                          | 15  |      |      |      |
| Сов                  | Output Capacitance                   | I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f <sub>test</sub> = 1MHz |     | 50   |      | pF   |
| f⊤                   | Current-Gain—Bandwidth Product       | I <sub>C</sub> = -0.5A; V <sub>CE</sub> = -5V                        |     | 9    |      | MHz  |

### Notice:

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