



# isc Silicon PNP Power Transistor

### **DESCRIPTION**

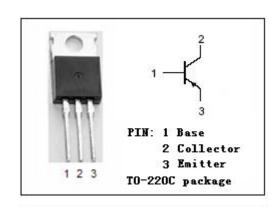
- High Collector Current:I<sub>C</sub>= -7A
- · Low Collector Saturation Voltage
  - :  $V_{CE(sat)} = -0.5V(Max)@I_C = -4A$
- · High Collector Power Dissipation
- Complement to Type 2SD843
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

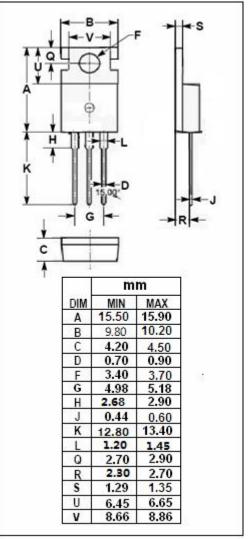
## **APPLICATIONS**

- · High current switching applications
- · Power amplifier applications.

# ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

| SYMBOL           | PARAMETER  | VALUE | UNIT       |
|------------------|--|-------|------------|
| V <sub>СВО</sub> | Collector-Base Voltage -100                        |       |            |
| V <sub>CEO</sub> | Collector-Emitter Voltage                          | -80   | V          |
| V <sub>EBO</sub> | Emitter-Base Voltage                               | -7.0  | V          |
| lc               | Collector Current-Continuous                       | -7    | А          |
| Pc               | Collector Power Dissipation @ T <sub>a</sub> =25°C | 1.5   | W          |
|                  | Total Power Dissipation @ T <sub>C</sub> =25°C     | 40    | VV         |
| TJ               | Junction Temperature                               | 150   | °C         |
| T <sub>stg</sub> | Storage Temperature Range -55~150                  |       | $^{\circ}$ |







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2SB753

## **ELECTRICAL CHARACTERISTICS**

 $T_c=25$ °C unless otherwise specified

| SYMBOL                | PARAMETER                            | CONDITIONS                                   | MIN | TYP. | MAX  | UNIT       |
|-----------------------|--------------------------------------|--|-----|------|------|------------|
| V <sub>(BR)CEO</sub>  | Collector-Emitter Breakdown Voltage  | I <sub>C</sub> = -50mA ; I <sub>B</sub> = 0  | -80 |      |      | V          |
| V <sub>CE</sub> (sat) | Collector-Emitter Saturation Voltage | I <sub>C</sub> = -4A; I <sub>B</sub> = -0.4A |     |      | -0.5 | V          |
| V <sub>BE(sat)</sub>  | Base-Emitter Saturation Voltage      | I <sub>C</sub> = -4A; I <sub>B</sub> = -0.4A |     |      | -1.4 | V          |
| I <sub>CBO</sub>      | Collector Cutoff Current             | V <sub>CB</sub> = -100V ; I <sub>E</sub> = 0 |     |      | -5   | μА         |
| I <sub>EBO</sub>      | Emitter Cutoff Current               | V <sub>EB</sub> = -5V; I <sub>C</sub> = 0    |     |      | -5   | μ <b>А</b> |
| h <sub>FE-1</sub>     | DC Current Gain                      | I <sub>C</sub> = -1A ; V <sub>CE</sub> = -1V | 70  |      | 240  |            |
| h <sub>FE-2</sub>     | DC Current Gain                      | I <sub>C</sub> = -4A ; V <sub>CE</sub> = -1V | 30  |      |      |            |

### ♦ h<sub>FE-1</sub> Classifications

| 0      | Y       |  |  |
|--------|---------|--|--|
| 70-140 | 120-240 |  |  |

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