



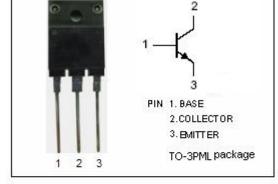
## **isc Silicon NPN Power Transistor**

### **DESCRIPTION**

- · High Breakdown Voltage-
  - : V<sub>CBO</sub>= 1500V (Min)
- · High Switching Speed
- High Reliability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

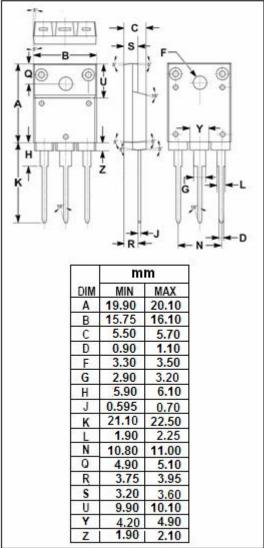
## **APPLICATIONS**

· Color TV horizontal deflection output applications



# ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| SYMBOL           | PARAMETER   | VALUE         | UNIT       |  |
|------------------|---|---------------|------------|--|
| V <sub>CBO</sub> | Collector-Base Voltage                            | 1500          | V          |  |
| V <sub>CEO</sub> | Collector-Emitter Voltage                         | 800           | V          |  |
| V <sub>EBO</sub> | Emitter-Base Voltage                              | 6             | V          |  |
| lc               | Collector Current- Continuous                     | 8             | А          |  |
| I <sub>CP</sub>  | Collector Current-Pulse                           | 20            | А          |  |
| Pc               | Collector Power Dissipation @ T <sub>a</sub> =25℃ | 3.0           | w          |  |
|                  | Collector Power Dissipation @ T <sub>C</sub> =25℃ | 60            |            |  |
| Тл               | Junction Temperature                              | nperature 150 |            |  |
| T <sub>stg</sub> | Storage Temperature Range                         | -55~150       | $^{\circ}$ |  |





## isc Silicon NPN Power Transistor

2SD2579

#### **ELECTRICAL CHARACTERISTICS**

Tc=25℃ unless otherwise specified

| SYMBOL                | PARAMETER                            | CONDITIONS  | MIN | TYP. | MAX | UNIT       |
|-----------------------|--------------------------------------|---|-----|------|-----|------------|
| V <sub>CEO(SUS)</sub> | Collector-Emitter Sustaining Voltage | I <sub>C</sub> = 50mA; I <sub>B</sub> = 0   | 800 |      |     | ٧          |
| V <sub>CE</sub> (sat) | Collector-Emitter Saturation Voltage | I <sub>C</sub> = 5A; I <sub>B</sub> = 1A  |     |      | 5.0 | V          |
| V <sub>BE</sub> (sat) | Base-Emitter Saturation Voltage      | I <sub>C</sub> = 5A; I <sub>B</sub> = 1A  |     |      | 1.5 | V          |
| Ісво                  | Collector Cutoff Current             | V <sub>CB</sub> = 800V ; I <sub>E</sub> = 0   |     |      | 10  | μА         |
| I <sub>CES</sub>      | Collector Cutoff Current             | V <sub>CE</sub> = 1500V ; R <sub>BE</sub> = 0   |     |      | 1.0 | mA         |
| I <sub>EBO</sub>      | Emitter Cutoff Current               | V <sub>EB</sub> = 4V ; I <sub>C</sub> = 0   |     |      | 1.0 | mA         |
| h <sub>FE-1</sub>     | DC Current Gain                      | I <sub>C</sub> = 1A; V <sub>CE</sub> = 5V   | 20  |      | 35  |            |
| h <sub>FE-2</sub>     | DC Current Gain                      | I <sub>C</sub> = 5A ; V <sub>CE</sub> = 5V  | 5   |      | 8   |            |
| t <sub>f</sub>        | Fall Time                            | I <sub>C</sub> = 4A , I <sub>B1</sub> = 0.8A ; I <sub>B2</sub> = 1.6A<br>P <sub>W</sub> =20 μ s; Duty Cycle ≤1% |     |      | 0.3 | μ <b>S</b> |

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