

**Silicon NPN Power Transistors****2SC2578****DESCRIPTION**

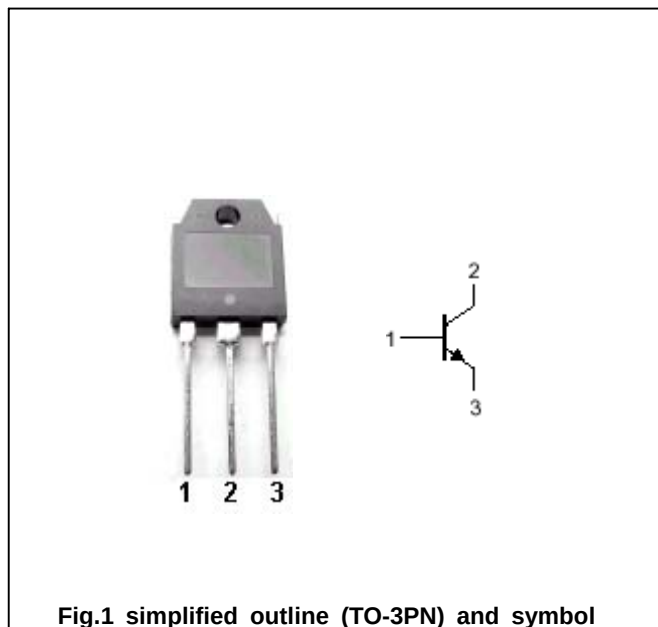
- With TO-3PN package
- Complementary to 2SA1104
- High Power Dissipation
- High Current Capability

**APPLICATIONS**

- Audio power amplifier
- DC TO DC Converter

**PINNING**

| PIN | DESCRIPTION                          |
|-----|--------------------------------------|
| 1   | Base                                 |
| 2   | Collector;connected to mounting base |
| 3   | Emitter                              |

**Absolute maximum ratings(Ta=°C)**

| SYMBOL    | PARAMETER                   | CONDITIONS               | VALUE   | UNIT               |
|-----------|-----------------------------|--------------------------|---------|--------------------|
| $V_{CBO}$ | Collector-base voltage      | Open emitter             | 140     | V                  |
| $V_{CEO}$ | Collector-emitter voltage   | Open base                | 100     | V                  |
| $V_{EBO}$ | Emitter-base voltage        | Open collector           | 6       | V                  |
| $I_C$     | Collector current           |                          | 7       | A                  |
| $P_C$     | Collector power dissipation | $T_C=25^{\circ}\text{C}$ | 70      | W                  |
| $T_j$     | Junction temperature        |                          | 150     | $^{\circ}\text{C}$ |
| $T_{stg}$ | Storage temperature         |                          | -55~150 | $^{\circ}\text{C}$ |

## Silicon NPN Power Transistors

## 2SC2578

## CHARACTERISTICS

Tj=25°C unless otherwise specified

| SYMBOL        | PARAMETER                            | CONDITIONS                | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------------|---------------------------|-----|------|-----|------|
| $V_{(BR)CBO}$ | Collector-base breakdown voltage     | $I_C=5mA; I_E=0$          | 140 |      |     | V    |
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage  | $I_C=10mA; R_{BE}=\infty$ | 100 |      |     | V    |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage       | $I_C=0; I_E=5mA$          | 6   |      |     | V    |
| $I_{CBO}$     | Collector cut-off current            | $V_{CB}=100V; I_E=0$      |     |      | 0.1 | mA   |
| $I_{EBO}$     | Emitter cut-off current              | $V_{EB}=4V; I_C=0$        |     |      | 0.1 | mA   |
| $h_{FE1}$     | DC current gain                      | $I_C=1A; V_{CE}=5V$       | 55  |      | 160 |      |
| $h_{FE2}$     | DC current gain                      | $I_C=3A; V_{CE}=5V$       | 50  |      |     |      |
| $V_{CE(sat)}$ | Collector-emitter saturation voltage | $I_C=3A; I_B=0.3A$        |     |      | 2   | V    |

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