

**TOSHIBA****2SD2155**

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

**2SD2155**

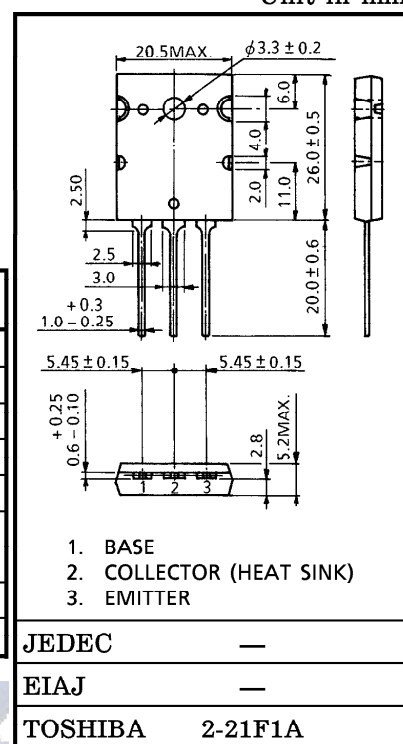
## POWER AMPLIFIER APPLICATIONS

- Complementary to 2SB1429
- Recommend for 100W High Fidelity Audio Frequency Amplifier Output Stage.

## MAXIMUM RATINGS (Ta = 25°C)

| CHARACTERISTIC                                      | SYMBOL           | RATING  | UNIT |
|-----------------------------------------------------|------------------|---------|------|
| Collector-Base Voltage                              | V <sub>CB0</sub> | 180     | V    |
| Collector-Emitter Voltage                           | V <sub>CEO</sub> | 180     | V    |
| Emitter-Base Voltage                                | V <sub>EBO</sub> | 5       | V    |
| Collector Current                                   | I <sub>C</sub>   | 15      | A    |
| Base Current                                        | I <sub>B</sub>   | 1.5     | A    |
| Collector Power Dissipation (T <sub>c</sub> = 25°C) | P <sub>C</sub>   | 150     | W    |
| Junction Temperature                                | T <sub>j</sub>   | 150     | °C   |
| Storage Temperature Range                           | T <sub>stg</sub> | -55~150 | °C   |

Unit in mm



Weight : 9.7g (Typ.)

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

| CHARACTERISTIC                       | SYMBOL                        | TEST CONDITION                                      | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|-------------------------------|-----------------------------------------------------|------|------|------|------|
| Collector Cut-off Current            | I <sub>CBO</sub>              | V <sub>CB</sub> = 180V, I <sub>E</sub> = 0          | —    | —    | 5.0  | μA   |
| Emitter Cut-off Current              | I <sub>EBO</sub>              | V <sub>EB</sub> = 5V, I <sub>C</sub> = 0            | —    | —    | 5.0  | μA   |
| Collector-Emitter Breakdown Voltage  | V <sub>(BR) CEO</sub>         | I <sub>C</sub> = 50mA, I <sub>B</sub> = 0           | 180  | —    | —    | V    |
| DC Current Gain                      | h <sub>FE</sub> (1)<br>(Note) | V <sub>CE</sub> = 5V, I <sub>C</sub> = 1A           | 55   | —    | 160  |      |
|                                      | h <sub>FE</sub> (2)           | V <sub>CE</sub> = 5V, I <sub>C</sub> = 6A           | 30   | —    | —    |      |
| Collector Emitter Saturation Voltage | V <sub>CE (sat)</sub>         | I <sub>C</sub> = 8A, I <sub>B</sub> = 0.8A          | —    | —    | 2.0  | V    |
| Base-Emitter Voltage                 | V <sub>BE</sub>               | V <sub>CE</sub> = 5V, I <sub>C</sub> = 6A           | —    | —    | 1.5  | V    |
| Transition Frequency                 | f <sub>T</sub>                | V <sub>CE</sub> = 5V, I <sub>C</sub> = 1A           | —    | 10   | —    | MHz  |
| Collector Output Capacitance         | C <sub>ob</sub>               | V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f = 1MHz | —    | 160  | —    | pF   |

Note : h<sub>FE</sub> (1) Classification R : 55~110, O : 80~160

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