

## SILICON NPN TRIPLE DIFFUSED TYPE

## 2SC3182

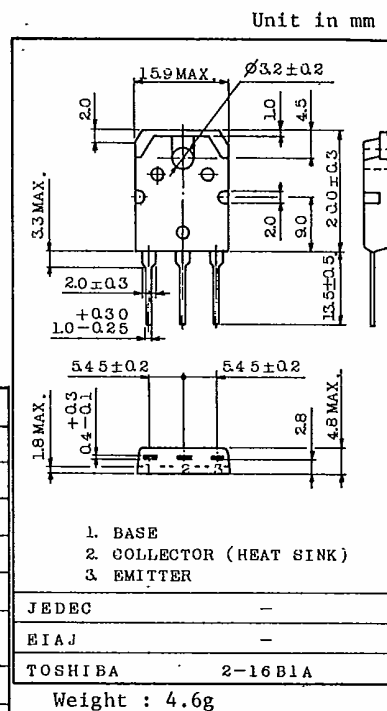
POWER AMPLIFIER APPLICATIONS.

## FEATURES:

- Complementary to 2SA1265
- Recommend for 70W High Fidelity Audio Frequency Amplifier Output Stage

## MAXIMUM RATINGS (Ta=25°C)

| CHARACTERISTIC                        | SYMBOL           | RATING    | UNIT |
|---------------------------------------|------------------|-----------|------|
| Collector-Base Voltage                | V <sub>CB0</sub> | 140       | V    |
| Collector-Emitter Voltage             | V <sub>CE0</sub> | 140       | V    |
| Emitter-Base Voltage                  | V <sub>EB0</sub> | 5         | V    |
| Collector Current                     | I <sub>C</sub>   | 10        | A    |
| Base Current                          | I <sub>B</sub>   | 1         | A    |
| Collector Power Dissipation (Tc=25°C) | P <sub>C</sub>   | 100       | W    |
| Junction Temperature                  | T <sub>j</sub>   | 150       | °C   |
| Storage Temperature Range             | T <sub>stg</sub> | -55 ~ 150 | °C   |



## ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC                       | SYMBOL                        | TEST CONDITION                                  | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|-------------------------------|---|------|------|------|------|
| Collector Cut-off Current            | I <sub>CB0</sub>              | V <sub>CB</sub> =140V, I <sub>E</sub> =0        | -    | -    | 5.0  | μA   |
| Emitter Cut-off Current              | I <sub>EB0</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         | 140  | -    | -    | 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> =5A         | 35   | 83   | -    |      |
| Collector-Emitter Saturation Voltage | V <sub>CE(sat)</sub>          | I <sub>C</sub> =7A, I <sub>B</sub> =0.7A        | -    | 0.3  | 2.0  | V    |
| Base-Emitter Voltage                 | V <sub>BE</sub>               | V <sub>CE</sub> =5V, I <sub>C</sub> =5A         | -    | 0.9  | 1.5  | V    |
| Transition Frequency                 | f <sub>T</sub>                | V <sub>CE</sub> =5V, I <sub>C</sub> =1A         | -    | 30   | -    | MHz  |
| Collector Output Capacitance         | C <sub>ob</sub>               | V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz | -    | 220  | -    | pF   |

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

TOSHIBA CORPORATION

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