

### Transistor

### Silicon NPN Triple Diffused Type

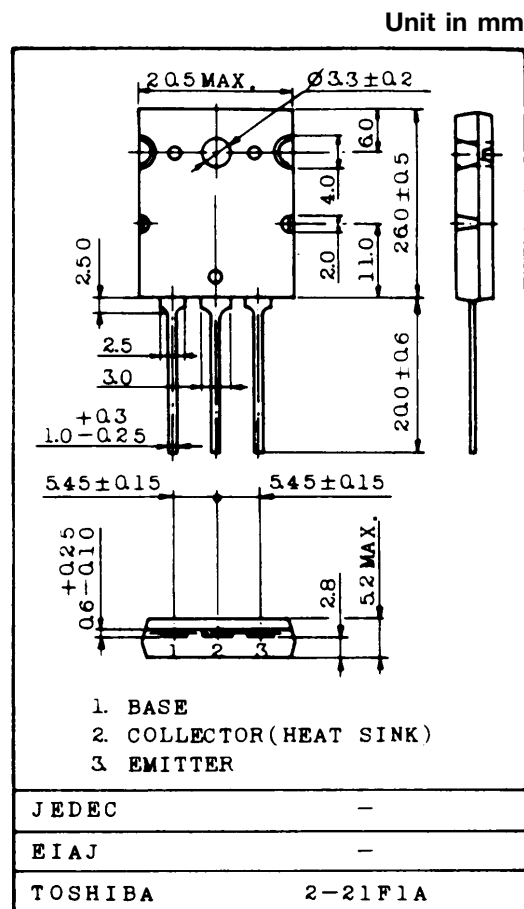
### Power Amplifier Applications

#### Features

- Complementary to 2SA1302
- Recommended for 100W High Fidelity Audio Frequency Amplifier Output Stage

#### Absolute Maximum Ratings (Ta = 25°C)

| CHARACTERISTIC                          | SYMBOL    | RATING    | UNIT |
|---|-----------|-----------|------|
| Collector-Base Voltage                  | $V_{CB0}$ | 200       | V    |
| Collector-Emitter Voltage               | $V_{CE0}$ | 200       | V    |
| Emitter-Base Voltage                    | $V_{EB0}$ | 5         | V    |
| Collector Current                       | $I_C$     | 15        | A    |
| Base Current                            | $I_B$     | 1.5       | A    |
| Collector Power Dissipation (Tc = 25°C) | $P_C$     | 150       | W    |
| Junction Temperature                    | $T_j$     | 150       | °C   |
| Storage Temperature Range               | $T_{stg}$ | -55 ~ 150 | °C   |

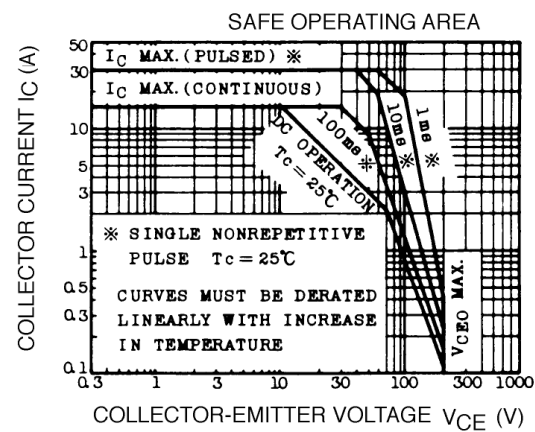
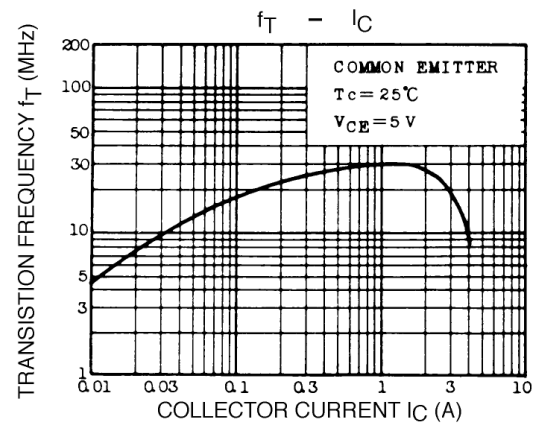
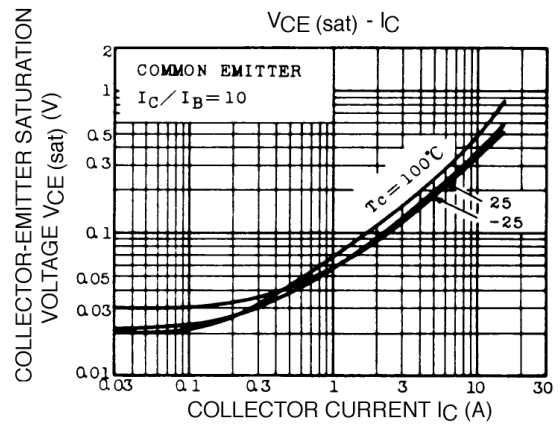
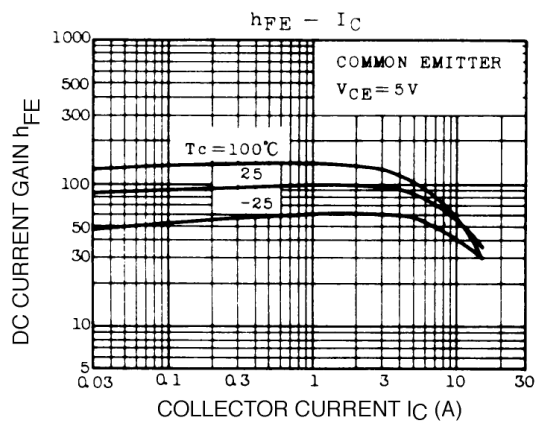
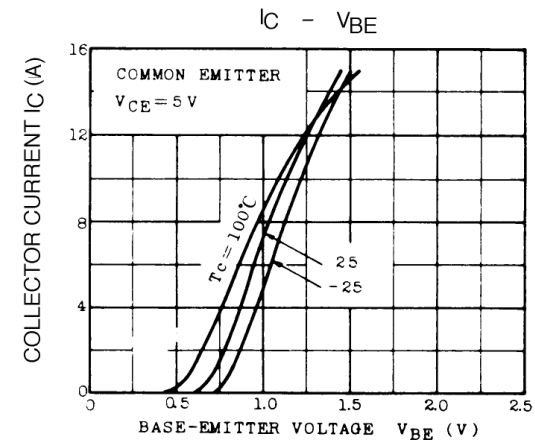
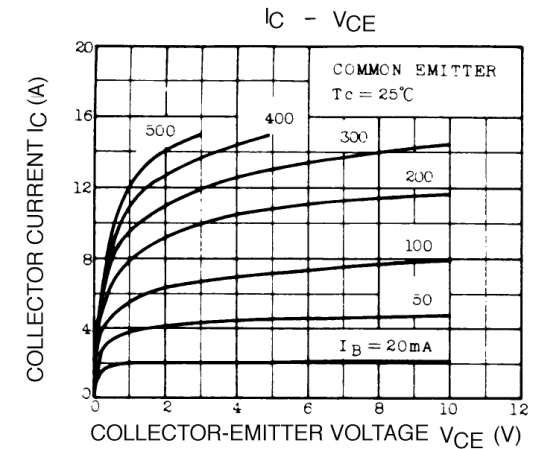


#### Electrical Characteristics (Ta = 25°C)

Weight : 9.75g

| CHARACTERISTIC                       | SYMBOL             | TEST CONDITION                    | MIN. | TYP. | MAX. | UNIT    |
|--------------------------------------|--------------------|-----------------------------------|------|------|------|---------|
| Collector Cut-off Current            | $I_{CB0}$          | $V_{CB} = 200V, I_E = 0$          | —    | —    | 5.0  | $\mu A$ |
| Emitter Cut-off Current              | $I_{EB0}$          | $V_{EB} = 5V, I_C = 0$            | —    | —    | 5.0  | $\mu A$ |
| Collector-Emitter Breakdown Voltage  | $V_{(BR) CE0}$     | $I_C = 50mA, I_B = 0$             | 200  | —    | —    | V       |
| DC Current Gain                      | $h_{FE(1)}$ (Note) | $V_{CE} = 5V, I_C = 1mA$          | 55   | —    | 160  |         |
|                                      | $h_{FE(2)}$        | $V_{CE} = 5V, I_C = 8A$           | 35   | 60   | —    |         |
| Saturation Voltage Collector-Emitter | $V_{CE(sat)}$      | $I_C = 10A, I_B = 1A$             | —    | 0.40 | 3.0  | V       |
| Base-Emitter Voltage                 | $V_{BE}$           | $V_{CE} = 5V, I_C = 8A$           | —    | 1.0  | 1.5  | V       |
| Transition Frequency                 | $f_T$              | $V_{CE} = 5V, I_C = 1A$           | —    | 30   | —    | MHz     |
| Collector Output Capacitance         | $C_{ob}$           | $V_{CB} = 10V, I_E = 0, f = 1MHz$ | —    | 270  | —    | pF      |

Note:  $h_{FE}$  (1) Classification R : 0: 55 ~ 110, O : 80 ~ 160



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