

### Transistor

#### Silicon NPN Triple Diffused Type

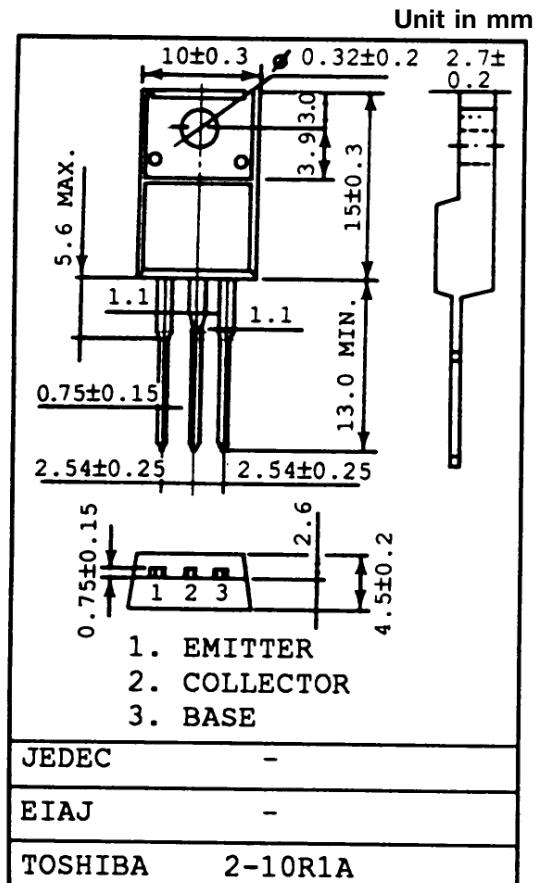
#### Audio Frequency Power Amplifier

##### Features

- High DC Current Gain : 100 (Min.)
- Low Saturation Voltage
  - $V_{CE(sat)} = 1.0V$  (Max.) ( $I_C = 2A$ ,  $I_B = 0.2A$ )
- High Power Dissipation
  - $P_C = 25W$  ( $T_c = 25^\circ C$ )
- Collector Metal (Fin) is Covered with Mold Resin
- Complementary to 2SB1375

#### Absolute Maximum Ratings ( $T_a = 25^\circ C$ )

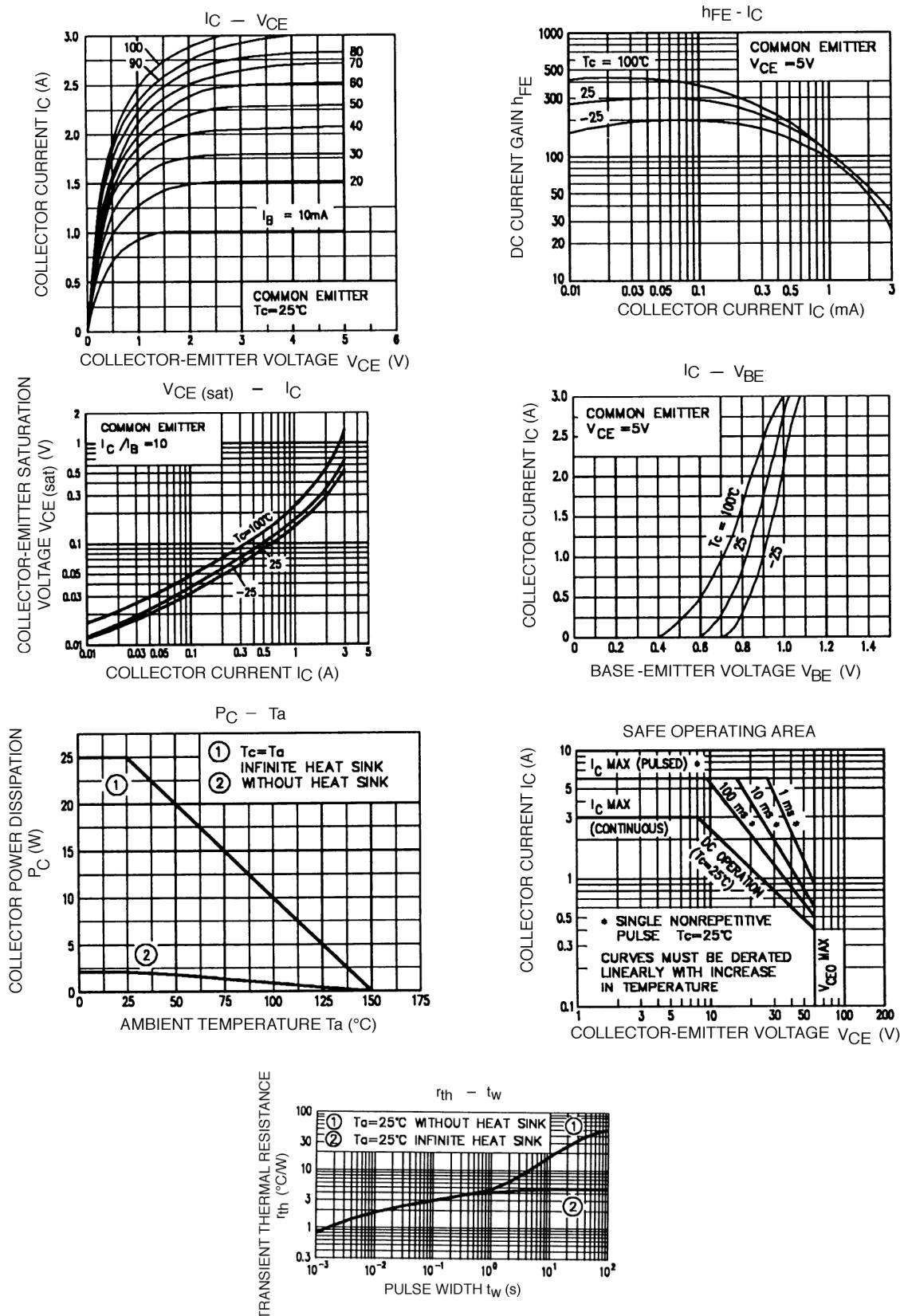
| CHARACTERISTIC              | SYMBOL    | RATING    | UNIT       |
|-----------------------------|-----------|-----------|------------|
| Collector-Base Voltage      | $V_{CBO}$ | 60        | V          |
| Collector-Emitter Voltage   | $V_{CEO}$ | 60        | V          |
| Emitter-Base Voltage        | $V_{EBO}$ | 7         | V          |
| Collector Current           | $I_C$     | 3         | A          |
| Base Current                | $I_B$     | 0.5       | A          |
| Collector Power Dissipation | $P_C$     | 2.0       | W          |
|                             |           | 25        |            |
| Junction Temperature        | $T_j$     | 150       | $^\circ C$ |
| Storage Temperature Range   | $T_{stg}$ | -55 ~ 150 | $^\circ C$ |



Weight: 1.7g

#### Electrical Characteristics ( $T_a = 25^\circ C$ )

| CHARACTERISTIC                       | SYMBOL          | TEST CONDITION                             | MIN. | TYP. | MAX. | UNIT    |
|--------------------------------------|-----------------|--|------|------|------|---------|
| Collector Cut-off Current            | $I_{CBO}$       | $V_{CB} = 60V$ , $I_E = 0$                 | -    | -    | 100  | $\mu A$ |
| Emitter Cut-off Current              | $I_{EBO}$       | $V_{EB} = 7V$ , $I_C = 0$                  | -    | -    | 100  | $\mu A$ |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$   | $I_C = 50mA$ , $I_B = 0$                   | 60   | -    | -    | V       |
| DC Current Gain                      | $h_{FE}$ (Note) | $V_{CE} = 5V$ , $I_C = -0.5mA$             | 100  | -    | 320  |         |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$   | $I_C = 2A$ , $I_B = 0.2A$                  | -    | 0.4  | 10   | V       |
| Base-Emitter Voltage                 | $V_{BE}$        | $V_{CE} = 5V$ , $I_C = 0.5A$               | -    | 0.75 | 1.0  | V       |
| Transition Frequency                 | $f_T$           | $V_{CE} = 5V$ , $I_C = 0.5A$               | -    | 3.0  | -    | MHz     |
| Collector Output Capacitance         | $C_{ob}$        | $V_{CB} = 10V$ , $I_E = 0$ ,<br>$f = 1MHz$ | -    | 35   | -    | pF      |



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