

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

**2SC2236**

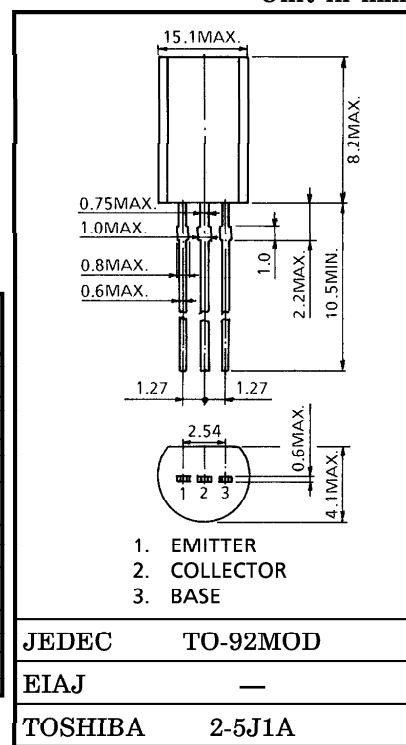
AUDIO POWER AMPLIFIER APPLICATIONS.

Unit in mm

- Complementary to 2SA966 and 3 Watts Output Applications.

## MAXIMUM RATINGS (Ta = 25°C)

| CHARACTERISTIC              | SYMBOL    | RATING  | UNIT |
|-----------------------------|-----------|---------|------|
| Collector-Base Voltage      | $V_{CBO}$ | 30      | V    |
| Collector-Emitter Voltage   | $V_{CEO}$ | 30      | V    |
| Emitter-Base Voltage        | $V_{EBO}$ | 5       | V    |
| Collector Current           | $I_C$     | 1.5     | A    |
| Base Current                | $I_B$     | 0.15    | A    |
| Collector Power Dissipation | $P_C$     | 900     | mW   |
| Junction Temperature        | $T_j$     | 150     | °C   |
| Storage Temperature Range   | $T_{stg}$ | -55~150 | °C   |



## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

Weight : 0.36g

| CHARACTERISTIC                       | SYMBOL          | TEST CONDITION              | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|-----------------|-----------------------------|------|------|------|------|
| Collector Cut-off Current            | $I_{CBO}$       | $V_{CB}=30V, I_E=0$         | —    | —    | 100  | nA   |
| Emitter Cut-off Current              | $I_{EBO}$       | $V_{EB}=5V, I_C=0$          | —    | —    | 100  | nA   |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$   | $I_C=10mA, I_B=0$           | 30   | —    | —    | V    |
| Emitter-Base Breakdown Voltage       | $V_{(BR)EBO}$   | $I_E=1mA, I_C=0$            | 5    | —    | —    | V    |
| DC Current Gain                      | $h_{FE}$ (Note) | $V_{CE}=2V, I_C=500mA$      | 100  | —    | 320  |      |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$   | $I_C=1.5A, I_B=0.03A$       | —    | —    | 2.0  | V    |
| Base-Emitter Voltage                 | $V_{BE}$        | $V_{CE}=2V, I_C=500mA$      | —    | —    | 1.0  | V    |
| Transition Frequency                 | $f_T$           | $V_{CE}=2V, I_C=500mA$      | —    | 120  | —    | MHz  |
| Collector Output Capacitance         | $C_{ob}$        | $V_{CB}=10V, I_E=0, f=1MHz$ | —    | —    | 30   | pF   |

Note :  $h_{FE}$  Classification    O : 100~200,    Y : 160~320

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