

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SC5242

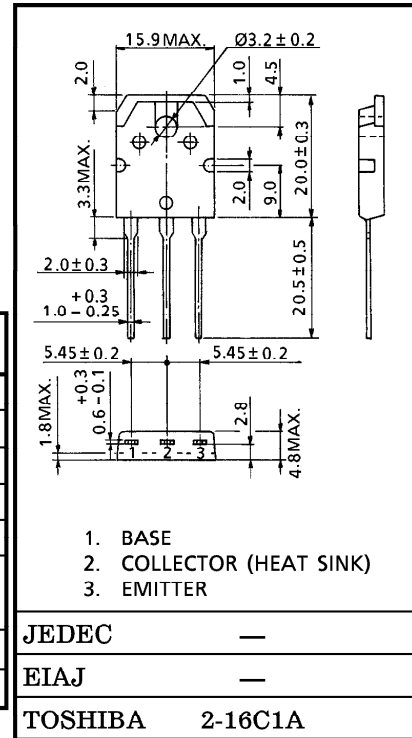
POWER AMPLIFIER APPLICATIONS

Unit in mm

- High Collector Breakdown Voltage : $V_{CEO} = 230V$ (Min.)
- Complementary to 2SA1962
- Recommend for 80W High Fidelity Audio Frequency Amplifier Output Stage.

MAXIMUM RATINGS ($T_a = 25^\circ C$)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|--|-----------|---------|------------|
| Collector-Base Voltage | V_{CBO} | 230 | V |
| Collector-Emitter Voltage | V_{CEO} | 230 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 15 | A |
| Base Current | I_B | 1.5 | A |
| Collector Power Dissipation ($T_c = 25^\circ C$) | P_C | 130 | W |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | -55~150 | $^\circ C$ |



ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

Weight : 4.7g (Typ.)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|------------------------|-----------------------------------|------|------|------|---------|
| Collector Cut-off Current | I_{CBO} | $V_{CB} = 230V, I_E = 0$ | — | — | 5.0 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB} = 5V, I_C = 0$ | — | — | 5.0 | μA |
| Collector-Emitter Breakdown Voltage | $V_{(BR) CEO}$ | $I_C = 50mA, I_B = 0$ | 230 | — | — | V |
| DC Current Gain | $h_{FE} (1)$ (Note) | $V_{CE} = 5V, I_C = 1A$ | 55 | — | 160 | |
| | $h_{FE} (2)$ | $V_{CE} = 5V, I_C = 7A$ | 35 | 60 | — | |
| Collector-Emitter Saturation Voltage | $V_{CE (sat)}$ | $I_C = 8A, I_B = 0.8A$ | — | 0.4 | 3.0 | V |
| Base-Emitter Voltage | V_{BE} | $V_{CE} = 5V, I_C = 7A$ | — | 1.0 | 1.5 | V |
| Transition Frequency | f_T | $V_{CE} = 5V, I_C = 1A$ | — | 30 | — | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB} = 10V, I_E = 0, f = 1MHz$ | — | 200 | — | pF |

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

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