

TOSHIBA TRANSISTOR SILICON PNP TRIPLE DIFFUSED TYPE

2SB1375

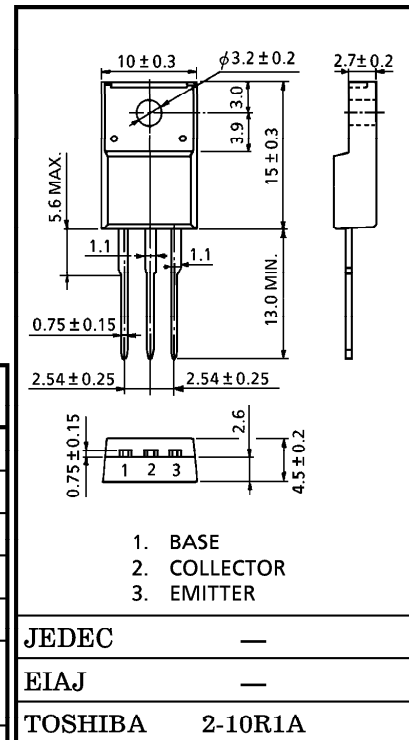
AUDIO FREQUENCY POWER AMPLIFIER

Unit in mm

- Low Saturation Voltage : $V_{CE(sat)} = -1.5V$ (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 2SD2012

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

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|--------------------------------|--------------------|-----------|---------|------------|
| Collector-Base Voltage | | V_{CB0} | -60 | V |
| Collector-Emitter Voltage | | V_{CEO} | -60 | V |
| Emitter-Base Voltage | | V_{EB0} | -7 | V |
| Collector Current | | I_C | -3 | A |
| Base Current | | I_B | -0.5 | A |
| Collector Power Dissipation | $T_a = 25^\circ C$ | P_C | 2.0 | W |
| | $T_c = 25^\circ C$ | | 25 | |
| Junction Temperature | | T_j | 150 | $^\circ C$ |
| Storage Temperature Range | | T_{stg} | -55~150 | $^\circ C$ |



| | |
|---------|---------|
| JEDEC | — |
| EIAJ | — |
| TOSHIBA | 2-10R1A |

Weight : 1.7g

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

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|---------------|------------------------------------|------|-------|------|---------|
| Collector Cut-off Current | I_{CBO} | $V_{CB} = -60V, I_E = 0$ | — | — | -10 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB} = -7V, I_C = 0$ | — | — | -10 | μA |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = -50mA, I_B = 0$ | -60 | — | — | V |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE} = -5V, I_C = -0.5A$ | 100 | — | 320 | |
| | $h_{FE(2)}$ | $V_{CE} = -5V, I_C = -2A$ | 15 | — | — | |
| Collector Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = -2A, I_B = -0.2A$ | — | -1.0 | -1.5 | V |
| Base-Emitter Voltage | V_{BE} | $V_{CE} = -5V, I_C = -0.5A$ | — | -0.75 | -1.0 | V |
| Transition Frequency | f_T | $V_{CE} = -5V, I_C = -0.5A$ | — | 9 | — | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB} = -10V, I_E = 0, f = 1MHz$ | — | 50 | — | pF |

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