

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

2SC2230, 2SC2230A

HIGH VOLTAGE GENERAL AMPLIFIER APPLICATIONS.

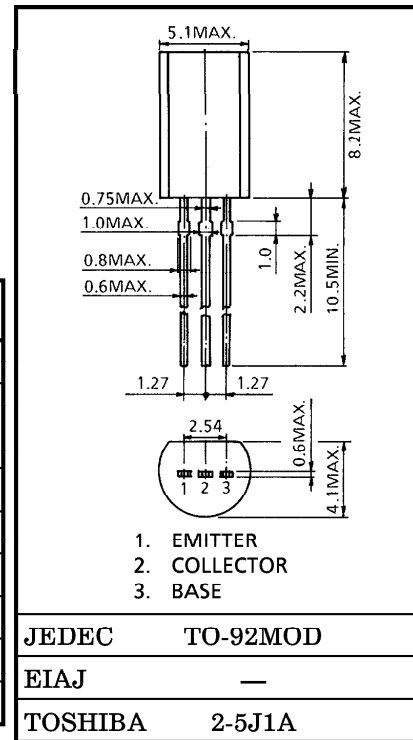
COLOR TV CLASS B SOUND OUTPUT APPLICATIONS.

Unit in mm

- High Voltage : $V_{CEO} = 180V$ (2SC2230A)
- High DC Current Gain.

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

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|---------|------------|
| Collector-Base Voltage | V_{CBO} | 200 | V |
| Collector-Emitter Voltage | V_{CEO} | 160 | V |
| | | 180 | |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 100 | mA |
| Base Current | I_B | 50 | mA |
| Collector Power Dissipation | P_C | 800 | mW |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -55~150 | $^\circ C$ |



Weight : 0.36g

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

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|------------------------|-----------------------------------|------|------|------|---------|
| Collector Cut-off Current | I_{CBO} | $V_{CB} = 200V, I_E = 0$ | — | — | 0.1 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB} = 5V, I_C = 0$ | — | — | 0.1 | μA |
| DC Current Gain | $h_{FE} (1)$ (Note) | $V_{CE} = 10V, I_C = 10mA$ | 120 | — | 400 | |
| | $h_{FE} (2)$ | $V_{CE} = 10V, I_C = 50mA$ | 80 | — | — | |
| Collector-Emitter Saturation Voltage | $V_{CE} (sat)$ | $I_C = 50mA, I_B = 5mA$ | — | — | 0.5 | V |
| Base-Emitter Voltage | V_{BE} | $V_{CE} = 10V, I_C = 1mA$ | 0.50 | 0.60 | 0.70 | V |
| Transition Frequency | f_T | $V_{CE} = 10V, I_C = 10mA$ | 50 | — | — | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB} = 10V, I_E = 0, f = 1MHz$ | — | — | 7.0 | pF |

Note : $h_{FE} (1)$ Classification Y : 120~240, GR : 200~400

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