

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE

# 2SC2383

COLOR TV VERT. DEFLECTION OUTPUT APPLICATIONS

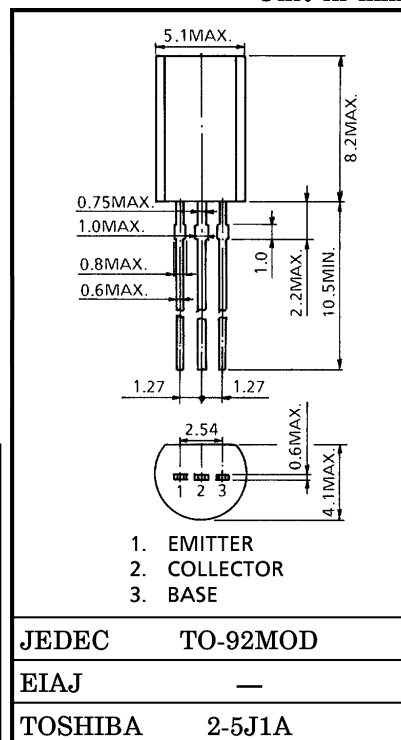
COLOR TV CLASS B SOUND OUTPUT APPLICATIONS

Unit in mm

- High Voltage :  $V_{CEO} = 160\text{ V}$
- Large Continuous Collector Current Capability.
- Recommended for Vert. Deflection Output & Sound Output Applications for Line Operated TV.
- Complementary to 2SA1013

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

| CHARACTERISTIC              | SYMBOL    | RATING  | UNIT             |
|-----------------------------|-----------|---------|------------------|
| Collector-Base Voltage      | $V_{CBO}$ | 160     | V                |
| Collector-Emitter Voltage   | $V_{CEO}$ | 160     | V                |
| Emitter-Base Voltage        | $V_{EBO}$ | 6       | V                |
| Collector Current           | $I_C$     | 1       | A                |
| Base Current                | $I_B$     | 0.5     | A                |
| Collector Power Dissipation | $P_C$     | 900     | mW               |
| Junction Temperature        | $T_j$     | 150     | $^\circ\text{C}$ |
| Storage Temperature Range   | $T_{stg}$ | -55~150 | $^\circ\text{C}$ |



JEDEC TO-92MOD

EIAJ —

TOSHIBA 2-5J1A

Weight : 0.36 g

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

| CHARACTERISTIC                       | SYMBOL          | TEST CONDITION                                         | MIN. | TYP. | MAX. | UNIT          |
|--------------------------------------|-----------------|--------------------------------------------------------|------|------|------|---------------|
| Collector Cut-off Current            | $I_{CBO}$       | $V_{CB} = 150\text{ V}, I_E = 0$                       | —    | —    | 1.0  | $\mu\text{A}$ |
| Emitter Cut-off Current              | $I_{EBO}$       | $V_{EB} = 6\text{ V}, I_C = 0$                         | —    | —    | 1.0  | $\mu\text{A}$ |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$   | $I_C = 10\text{ mA}, I_B = 0$                          | 160  | —    | —    | V             |
| DC Current Gain                      | $h_{FE}$ (Note) | $V_{CE} = 5\text{ V}, I_C = 200\text{ mA}$             | 60   | —    | 320  |               |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$   | $I_C = 500\text{ mA}, I_B = 50\text{ mA}$              | —    | —    | 1.5  | V             |
| Base-Emitter Voltage                 | $V_{BE}$        | $V_{CE} = 5\text{ V}, I_C = 5\text{ mA}$               | 0.45 | —    | 0.75 | V             |
| Transition Frequency                 | $f_T$           | $V_{CE} = 5\text{ V}, I_C = 200\text{ mA}$             | 20   | 100  | —    | MHz           |
| Collector Output Capacitance         | $C_{ob}$        | $V_{CB} = 10\text{ V}, I_E = 0,$<br>$f = 1\text{ MHz}$ | —    | —    | 20   | pF            |

(Note) :  $h_{FE}$  Classification R : 60~120, O : 100~200, Y : 160~320

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