

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSE TYPE (PCT PROCESS)

# 2SC4544

HIGH VOLTAGE SWITCHING AND AMPLIFIER APPLICATIONS

COLOR TV HORIZONTAL DRIVER APPLICATIONS

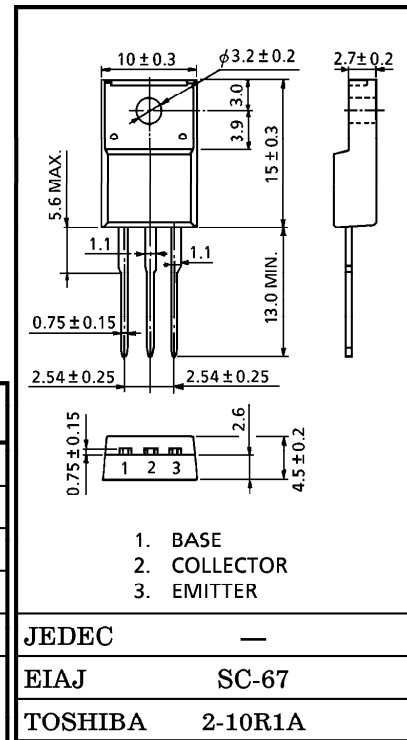
COLOR TV CHROMA OUTPUT APPLICATIONS

- High Voltage :  $V_{(BR)CEO} = 300V$
- Small Collector Output Capacitance :  $C_{ob} = 3.0pF$  (Typ.)
- Collector metal (Fin) is fully covered with mold resin.

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

| CHARACTERISTIC              |                    | SYMBOL    | RATING  | UNIT       |
|-----------------------------|--------------------|-----------|---------|------------|
| Collector-Base Voltage      |                    | $V_{CBO}$ | 300     | V          |
| Collector-Emitter Voltage   |                    | $V_{CEO}$ | 300     | V          |
| Emitter-Base Voltage        |                    | $V_{EBO}$ | 7       | V          |
| Collector Current           |                    | $I_C$     | 100     | mA         |
| Base Current                |                    | $I_B$     | 50      | mA         |
| Collector Power Dissipation | $T_a = 25^\circ C$ | $P_C$     | 2       | W          |
|                             | $T_c = 25^\circ C$ |           | 8       |            |
| Junction Temperature        |                    | $T_j$     | 150     | $^\circ C$ |
| Storage Temperature Range   |                    | $T_{stg}$ | -55~150 | $^\circ C$ |

Unit in mm



Weight : 1.7g

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

| CHARACTERISTIC                       | SYMBOL         | TEST CONDITION                    | MIN. | TYP. | MAX. | UNIT    |
|--------------------------------------|----------------|-----------------------------------|------|------|------|---------|
| Collector Cut-off Current            | $I_{CBO}$      | $V_{CB} = 240V, I_E = 0$          | —    | —    | 1.0  | $\mu A$ |
| Emitter Cut-off Current              | $I_{EBO}$      | $V_{EB} = 7V, I_C = 0$            | —    | —    | 1.0  | $\mu A$ |
| DC Current Gain                      | $h_{FE} (1)$   | $V_{CE} = 10V, I_C = 4mA$         | 20   | —    | —    |         |
|                                      | $h_{FE} (2)$   | $V_{CE} = 10V, I_C = 20mA$        | 30   | —    | 200  |         |
| Collector-Emitter Saturation Voltage | $V_{CE} (sat)$ | $I_C = 10mA, I_B = 1mA$           | —    | —    | 1.0  | V       |
| Base-Emitter Saturation Voltage      | $V_{BE} (sat)$ | $I_C = 10mA, I_B = 1mA$           | —    | —    | 1.0  | V       |
| Transition Frequency                 | $f_T$          | $V_{CE} = 10V, I_C = 20mA$        | 50   | 70   | —    | MHz     |
| Collector Output Capacitance         | $C_{ob}$       | $V_{CB} = 20V, I_E = 0, f = 1MHz$ | —    | 3.0  | —    | pF      |

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