

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED MESA TYPE

2SD2550

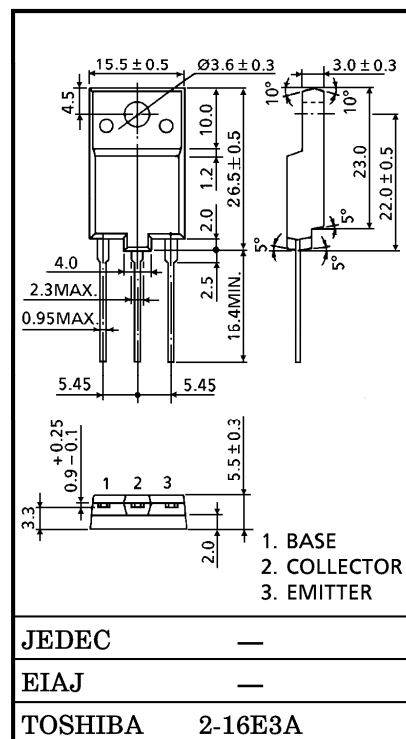
HORIZONTAL DEFLECTION OUTPUT FOR COLOR TV

Unit in mm

- High Voltage : $V_{CB0} = 1700\text{ V}$
- Low Saturation Voltage : $V_{CE(sat)} = 5.0\text{ V (Max)}$
- High Speed : $t_f = 0.6\ \mu\text{s (Max)}$
- Built-in Damper Type
- Collector Metal (Fin) is Fully Covered with Mold Resin.

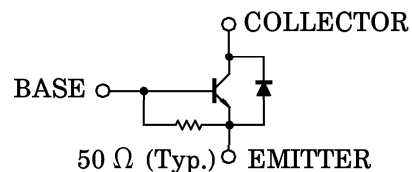
MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|-----------|----------|------------------|
| Collector-Base Voltage | V_{CB0} | 1700 | V |
| Collector-Emitter Voltage | V_{CEO} | 600 | V |
| Emitter-Base Voltage | V_{EB0} | 5 | V |
| Collector Current | DC | I_C | 4 |
| | Pulse | I_{CP} | 8 |
| Base Current | I_B | 2 | A |
| Collector Power Dissipation ($T_c = 25^\circ\text{C}$) | P_C | 50 | W |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -55~150 | $^\circ\text{C}$ |



Weight : 5.5 g (Typ.)

EQUIVALENT CIRCUIT



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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|--------------|---------------|--|------|------|------|---------------|
| Collector Cut-off Current | | I_{CBO} | $V_{CB} = 1700\text{ V}, I_E = 0$ | — | — | 1 | mA |
| Emitter Cut-off Current | | I_{EBO} | $V_{EB} = 5\text{ V}, I_C = 0$ | 66 | — | 200 | mA |
| Emitter-Base Breakdown Voltage | | $V_{(BR)EBO}$ | $I_E = 400\text{ mA}, I_B = 0$ | 5 | — | — | V |
| DC Current Gain | | h_{FE} | $V_{CE} = 5\text{ V}, I_C = 1\text{ A}$ | 8 | — | 22 | — |
| Collector-Emitter Saturation Voltage | | $V_{CE(sat)}$ | $I_C = 3\text{ A}, I_B = 0.8\text{ A}$ | — | 5 | 8 | V |
| Base-Emitter Saturation Voltage | | $V_{BE(sat)}$ | $I_C = 3\text{ A}, I_B = 0.8\text{ A}$ | — | — | 1.2 | V |
| Forward Voltage (Damper Diode) | | $-V_F$ | $I_F = 4\text{ A}$ | — | 1.5 | 2.0 | V |
| Transition Frequency | | f_T | $V_{CE} = 10\text{ V}, I_C = 0.1\text{ A}$ | — | 3 | — | MHz |
| Collector Output Capacitance | | C_{ob} | $V_{CE} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$ | — | 85 | — | pF |
| Switching Time | Storage Time | T_{stg} | $I_{CP} = 3\text{ A}, I_{B1}(\text{end}) = 0.8\text{ A}$ $f_H = 15.75\text{ kHz}$ | — | 7.5 | 10 | μs |
| | Fall Time | t_f | | — | 0.3 | 0.6 | |

