TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

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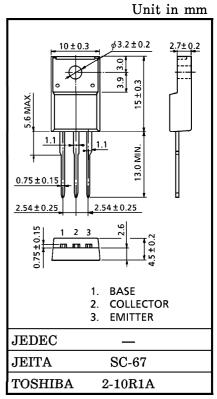
DYNAMIC FOCUS APPLICATIONS

HIGH VOLTAGE SWITCHING APPLICATIONS
HIGH VOLTAGE AMPLIFIER APPLICATIONS

• High Voltage : $V_{CEO} = 800 V$

MAXIMUM RATINGS (Tc = 25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT | |
|--------------------------------|---------------------------|----------------------|------|--|
| Collector-Base Voltage | V_{CBO} | V _{CBO} 800 | | |
| Collector-Emitter Voltage | v_{CEO} | 800 | V | |
| Emitter-Base Voltage | $v_{ m EBO}$ | 5 | V | |
| Collector Current | $I_{\mathbf{C}}$ | 50 | mA | |
| Base Current | $I_{\mathbf{B}}$ | 25 | mA | |
| Collector Power Ta = 25°C | Da | 2.0 | w | |
| Dissipation $Tc = 25^{\circ}C$ | $^{\mathrm{P}\mathrm{C}}$ | 10 | | |
| Junction Temperature | $T_{ m j}$ | 150 | °C | |
| Storage Temperature Range | $\mathrm{T_{stg}}$ | -55~150 | °C | |

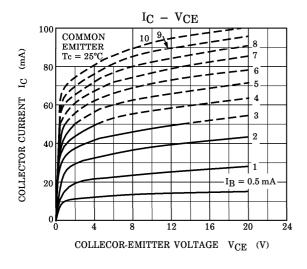


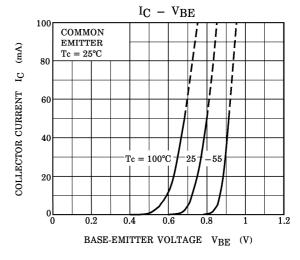
Weight: 1.7 g (Typ.)

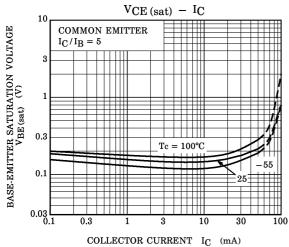
ELECTRICAL CHARACTERISTICS (Tc = 25°C)

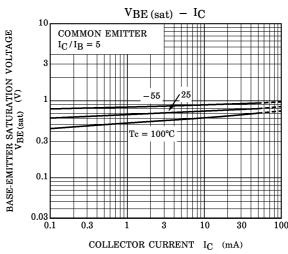
| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|---|-----------------------|--|------|------|------|----------------|
| Collector Cut-off Current | I_{CBO} | $V_{CB} = 640 \text{ V}, I_{E} = 0$ | _ | _ | 1.0 | μ A |
| Emitter Cut-off Current | I_{EBO} | $V_{EB} = 5 V, I_C = 0$ | _ | _ | 10 | μ A |
| DC Current Gain | $h_{	extbf{FE}}$ | $V_{CE} = 5 V$, $I_{C} = 7 mA$ | 15 | _ | _ | |
| Collector-Emitter Saturation Voltage | V _{CE} (sat) | $I_{\mathrm{C}} = 20 \mathrm{mA}, \; I_{\mathrm{B}} = 4 \mathrm{mA}$ | _ | _ | 1.0 | V |
| Base-Emitter Saturation Voltage | V _{BE} (sat) | $I_{\mathrm{C}}=20\mathrm{mA},~I_{\mathrm{B}}=4\mathrm{mA}$ | _ | _ | 1.5 | V |
| Transition Frequency | $ m f_{T}$ | $V_{CE} = 10 \text{ V}, I_{C} = 3 \text{ mA}$ | _ | 5.5 | _ | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB} = 100 V, f = 1 MHz$ | _ | 2.2 | _ | pF |

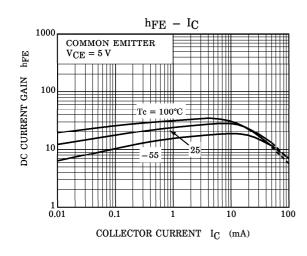
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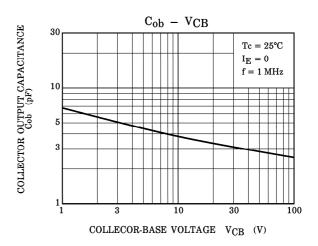




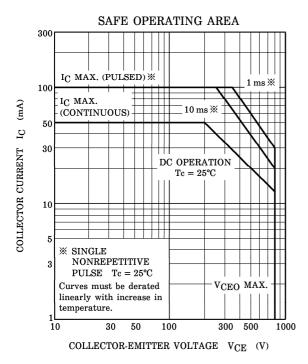








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