

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

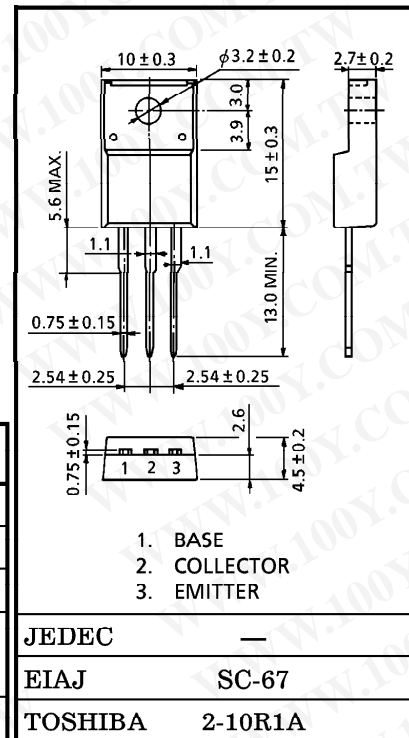
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SWITCHING REGULATOR AND HIGH VOLTAGE SWITCHING APPLICATIONS

HIGH SPEED DC-DC CONVERTER APPLICATIONS

- Excellent Switching Times
: $t_r = 0.5\mu s$ (Max.), $t_f = 0.3\mu s$ (Max.) at $I_C = 2A$
- High Collector Breakdown Voltage : $V_{CEO} = 400V$

Unit in mm



MAXIMUM RATINGS (Ta = 25°C)

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|-----------|---------|------|
| Collector-Base Voltage | | V_{CB0} | 600 | V |
| Collector-Emitter Voltage | | V_{CEO} | 400 | V |
| Emitter-Base Voltage | | V_{EBO} | 7 | V |
| Collector Current | DC | I_C | 5 | A |
| | Pulse | I_{CP} | 7 | |
| Base Current | | I_B | 2 | A |
| Collector Power Dissipation | Ta = 25°C | P_C | 2.0 | W |
| | Tc = 25°C | | 25 | |
| Junction Temperature | | T_j | 150 | °C |
| Storage Temperature Range | | T_{stg} | -55~150 | °C |

Weight : 1.7g

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

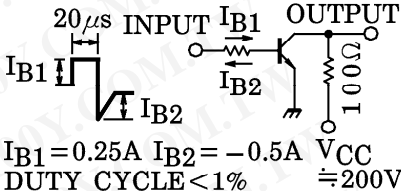
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● The information contained herein is subject to change without notice.

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|--------------|-----------------------|---|------|------|------|------|
| Collector Cut-off Current | | ICBO | V _{CB} = 500V, I _E = 0 | — | — | 20 | μA |
| Emitter Cut-off Current | | IEBO | V _{EB} = 7V, I _C = 0 | — | — | 100 | nA |
| Collector-Base Breakdown Voltage | | V (BR) CBO | I _C = 1mA, I _E = 0 | 600 | — | — | V |
| Collector-Emitter Breakdown Voltage | | V (BR) CEO | I _C = 10mA, I _B = 0 | 400 | — | — | V |
| DC Current Gain | | hFE (1) | V _{CE} = 5V, I _C = 1mA | 13 | — | — | |
| | | hFE (2) | V _{CE} = 5V, I _C = 0.5A | 20 | — | 65 | |
| Collector-Emitter Saturation Voltage | | V _{CE} (sat) | I _C = 2A, I _B = 0.25A | — | — | 1.0 | V |
| Base-Emitter Saturation Voltage | | V _{BE} (sat) | I _C = 2A, I _B = 0.25A | — | — | 1.3 | V |
| Switching Time | Rise Time | t _r |  <p>20μs INPUT I_{B1} OUTPUT I_{B1} I_{B2} 100Ω I_{B1} = 0.25A I_{B2} = -0.5A V_{CC} = 200V DUTY CYCLE < 1%</p> | — | — | 0.5 | μs |
| | Storage Time | t _{stg} | | — | — | 2.0 | |
| | Fall Time | t _f | | — | — | 0.3 | |

