

TOSHIBA Transistor Silicon NPN Triple Diffused Type (Darlington power transistor)

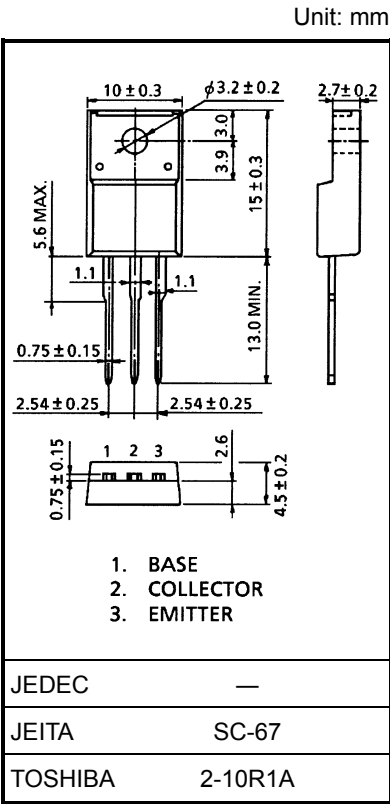
2SD2571

High Power Switching Applications
Hammer Drive, Pulse Motor Drive Applications

- High DC current gain: $h_{FE} = 2000$ (min) ($V_{CE} = 2\text{ V}$, $I_C = 1\text{ A}$)
- Low saturation voltage: $V_{CE(sat)} = 1.5\text{ V}$ (max) ($I_C = 1\text{ A}$)

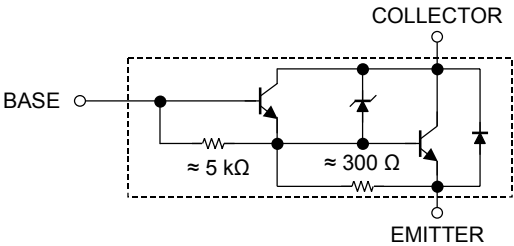
Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Characteristics | | Symbol | Rating | Unit |
|-----------------------------|--------------------------|-----------|--------------|------------------|
| Collector-base voltage | | V_{CBO} | 100 ± 10 | V |
| Collector-emitter voltage | | V_{CEO} | 100 ± 10 | V |
| Emitter-base voltage | | V_{EBO} | 8 | V |
| Collector current | DC | I_C | 2 | A |
| | Pulse | I_{CP} | 3 | |
| Base current | | I_B | 0.5 | A |
| Collector power dissipation | $T_a = 25^\circ\text{C}$ | P_C | 2.0 | W |
| | $T_c = 25^\circ\text{C}$ | | 25 | |
| Junction temperature | | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature range | | T_{stg} | -55 to 150 | $^\circ\text{C}$ |

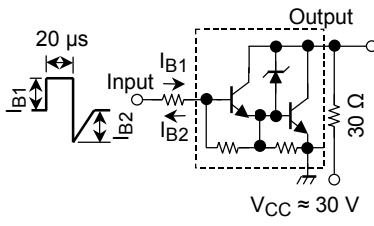


Weight: 1.7 g (typ.)

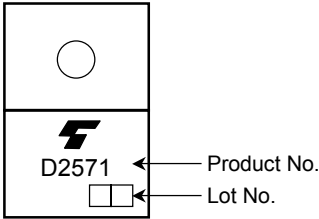
Equivalent Circuit



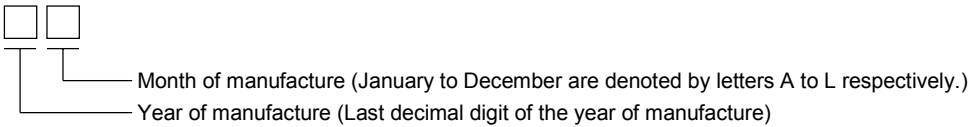
Electrical Characteristics (Ta = 25°C)

| Characteristics | | Symbol | Test Condition | Min | Typ. | Max | Unit |
|--------------------------------------|--------------|-----------------------|--|------|------|-------|------|
| Collector cut-off current | | ICBO | V _{CB} = 80 V, I _E = 0 | — | — | 100 | μA |
| Emitter cut-off current | | IEBO | V _{EB} = 8 V, I _C = 0 | 0.8 | — | 4.0 | mA |
| Collector-emitter breakdown voltage | | V _(BR) CEO | I _C = 10 mA, I _B = 0 | 85 | 100 | 115 | V |
| DC current gain | | h _{FE} (1) | V _{CE} = 2 V, I _C = 1 A | 2000 | — | 15000 | |
| | | h _{FE} (2) | V _{CE} = 2 V, I _C = 1.5 A | 1000 | — | — | |
| Collector-emitter saturation voltage | | V _{CE} (sat) | I _C = 1 A, I _B = 1 mA | — | — | 1.5 | V |
| Base-emitter saturation voltage | | V _{BE} (sat) | I _C = 1 A, I _B = 1 mA | — | — | 2.0 | V |
| Switching time | Turn-on time | t _{on} |  I _{B1} = -I _{B2} = 1 mA, duty cycle ≤ 1% | — | 0.45 | — | μs |
| | Storage time | t _{stg} | | — | 2.0 | — | |
| | Fall time | t _f | | — | 0.4 | — | |

Marking



Explanation of Lot No.



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000707EAA

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