

TOSHIBA Transistor Silicon NPN Triple Diffused Type (PCT Process)

2SC2073A

Power Amplifier Applications
Vertical Output Applications

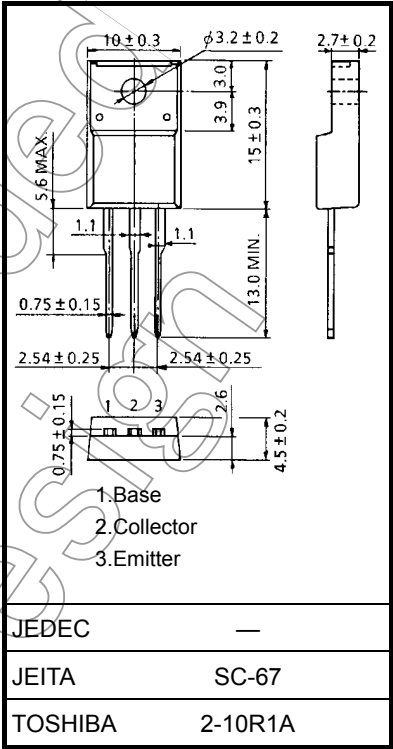
Absolute Maximum Ratings (Ta = 25°C)

| Characteristic | | Symbol | Rating | Unit |
|-----------------------------|-----------|------------------|------------|------|
| Collector-base voltage | | V _{CBO} | 150 | V |
| Collector-emitter voltage | | V _{CEO} | 150 | V |
| Emitter-base voltage | | V _{EBO} | 5 | V |
| Collector current | | I _C | 1.5 | A |
| Base current | | I _B | 0.5 | 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 to 150 | °C |

Note1: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Unit: mm

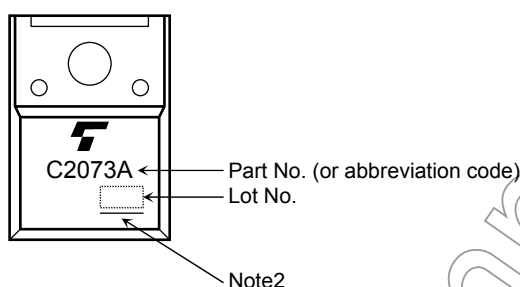


Weight: 1.7 g (typ.)

Electrical Characteristics (Ta = 25°C)

| Characteristic | Symbol | Test Conditions | Min | Typ. | Max | Unit |
|--------------------------------------|---------------|---|------|------|------|---------------|
| Collector cut-off current | I_{CBO} | $V_{CB} = 120\text{ V}, I_E = 0$ | — | — | 10 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = 5\text{ V}, I_C = 0$ | — | — | 10 | μA |
| DC current gain | h_{FE} | $V_{CE} = 10\text{ V}, I_C = 500\text{ mA}$ | 40 | 75 | 140 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 500\text{ mA}, I_B = 50\text{ mA}$ | — | — | 1.5 | V |
| Base-emitter voltage | V_{BE} | $V_{CE} = 10\text{ V}, I_C = 500\text{ mA}$ | 0.65 | 0.75 | 0.85 | V |
| Transition frequency | f_T | $V_{CE} = 10\text{ V}, I_C = 500\text{ mA}$ | — | 4 | — | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$ | — | 35 | — | pF |

Marking



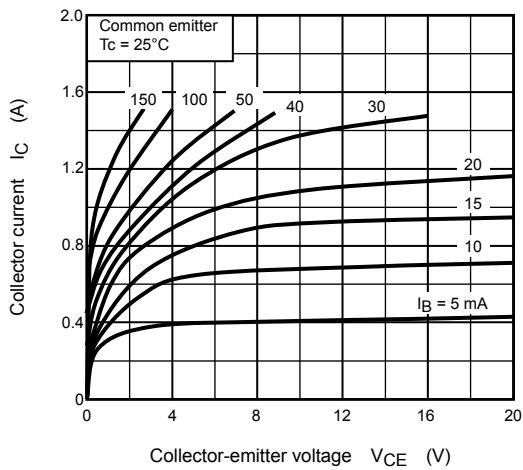
Note2 : A line under a Lot No. identifies the indication of product Labels.

[[G]]/RoHS COMPATIBLE or [[G]]/RoHS [[Pb]]

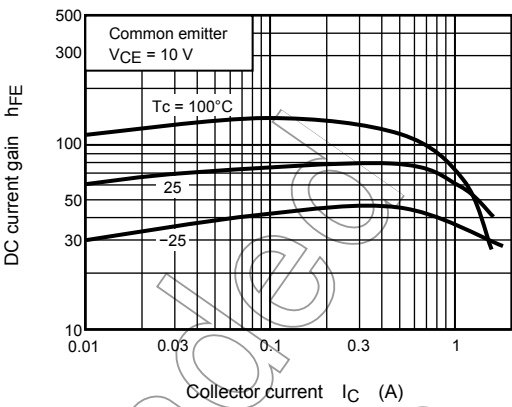
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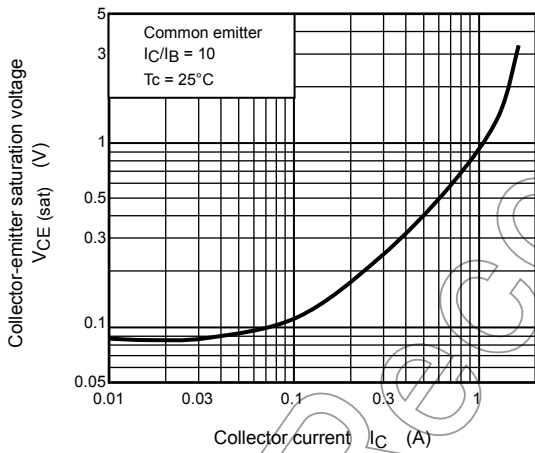
$I_C - V_{CE}$



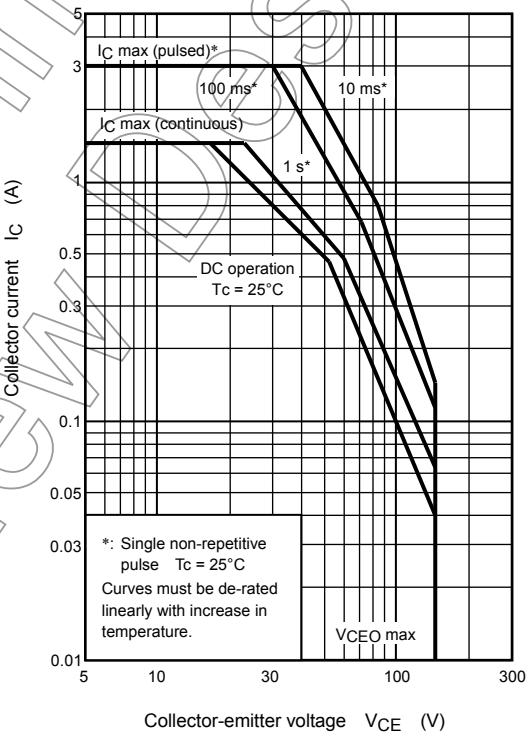
$h_{FE} - I_C$



$V_{CE}(\text{sat}) - I_C$



Safe Operating Area



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