

2SC3421

Audio Frequency Power Amplifier Applications

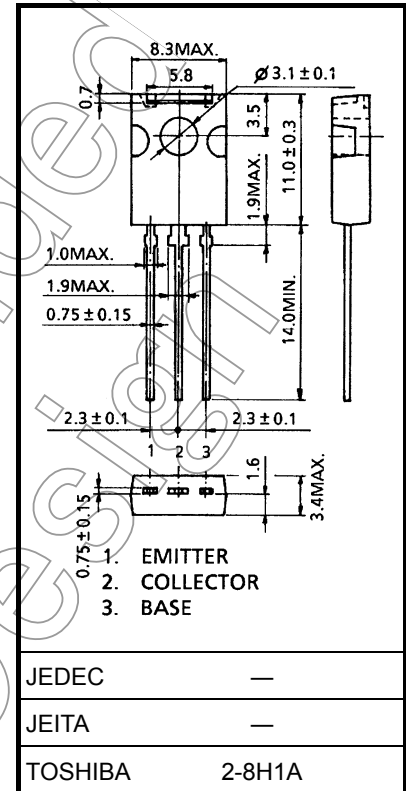
- Complementary to 2SA1358
- Suitable for driver of 60 to 80 watts audio amplifier
- High breakdown voltage

Absolute Maximum Ratings (Ta = 25°C)

| Characteristics | | Symbol | Rating | Unit |
|-----------------------------|-----------------------|------------------|------------|------|
| Collector-base voltage | | V _{CBO} | 120 | V |
| Collector-emitter voltage | | V _{CEO} | 120 | V |
| Emitter-base voltage | | V _{EB0} | 5 | V |
| Collector current | | I _C | 1 | A |
| Base current | | I _B | 100 | mA |
| Collector power dissipation | T _a = 25°C | P _C | 1.5 | W |
| | T _c = 25°C | | 10 | |
| 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



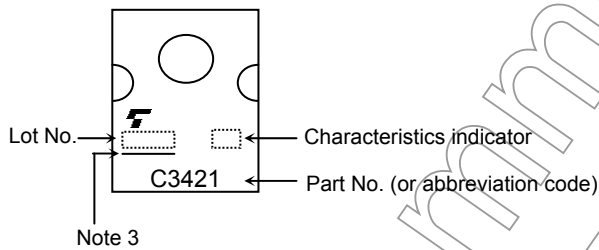
Weight: 0.82 g (typ.)

Electrical Characteristics (Ta = 25°C)

| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|--------------------------------------|----------------------|---|-----|------|-----|------|
| Collector cut-off current | I_{CBO} | $V_{CB} = 120\text{ V}, I_E = 0$ | — | — | 100 | nA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = 5\text{ V}, I_C = 0$ | — | — | 100 | nA |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C = 10\text{ mA}, I_B = 0$ | 120 | — | — | V |
| DC current gain | h_{FE} (Note 2) | $V_{CE} = 5\text{ V}, I_C = 100\text{ mA}$ | 80 | — | 240 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 500\text{ mA}, I_B = 50\text{ mA}$ | — | 0.30 | 1.0 | V |
| Base-emitter voltage | V_{BE} | $V_{CE} = 5\text{ V}, I_C = 500\text{ mA}$ | — | 0.78 | 1.0 | V |
| Transition frequency | f_T | $V_{CE} = 5\text{ V}, I_C = 100\text{ mA}$ | — | 120 | — | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$ | — | 15 | — | pF |

Note 2: h_{FE} classification O: 80 to 160, Y: 120 to 240

Marking

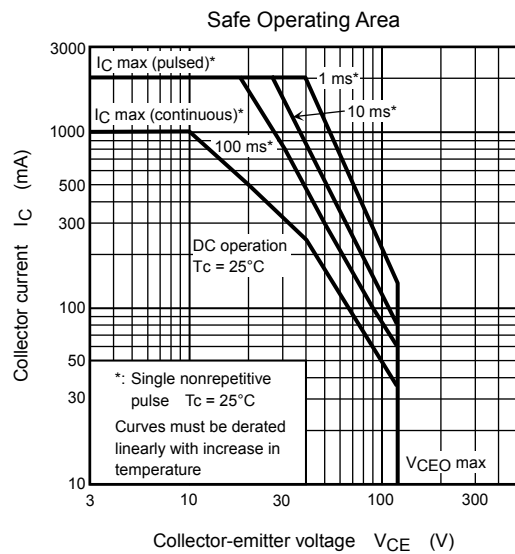
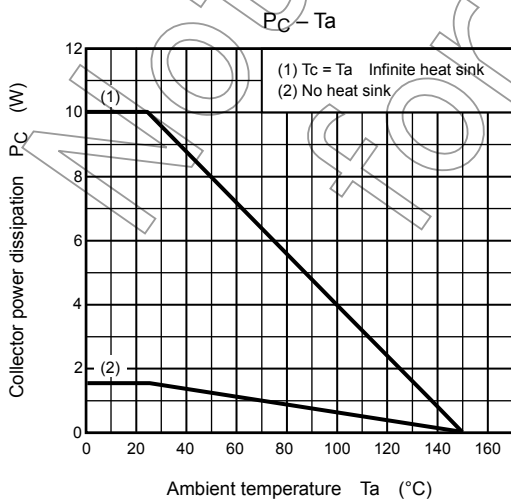
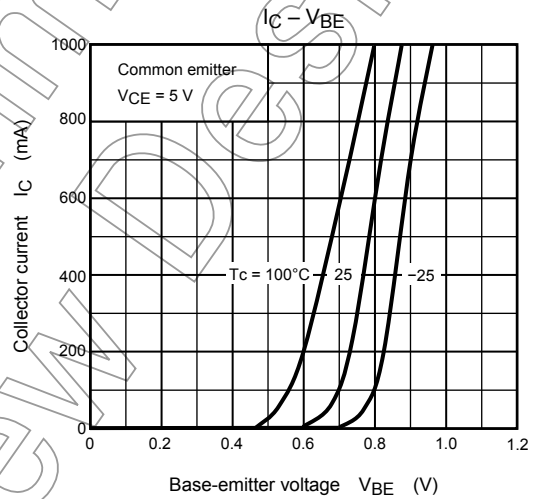
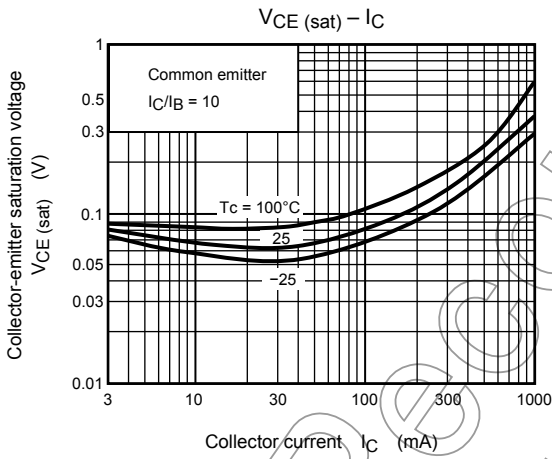
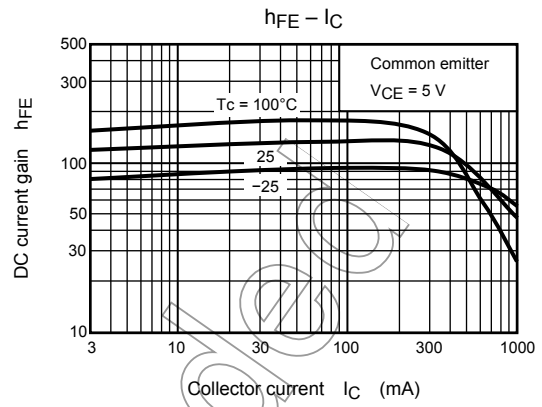
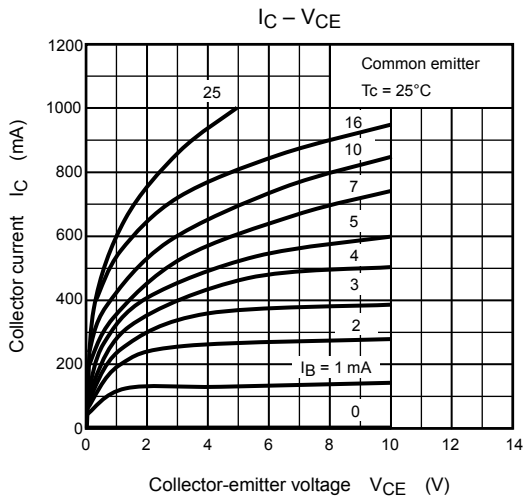


Note 3: A line under a Lot No. identifies the indication of product Labels.

Not underlined: $[[Pb]]/INCLUDES > MCV$

Underlined: $[[G]]/RoHS\ COMPATIBLE$ or $[[G]]/RoHS\ [[Pb]]$

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