

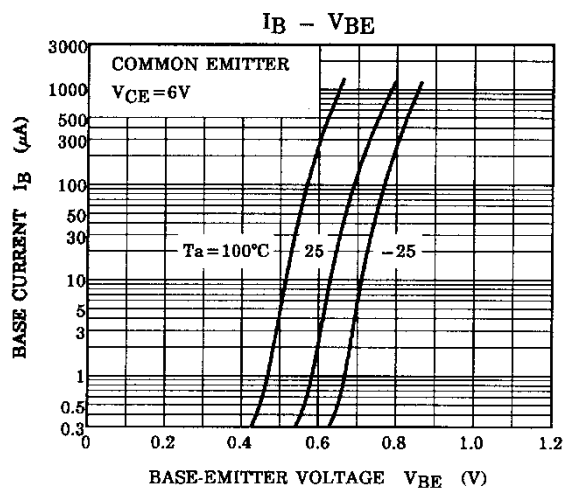
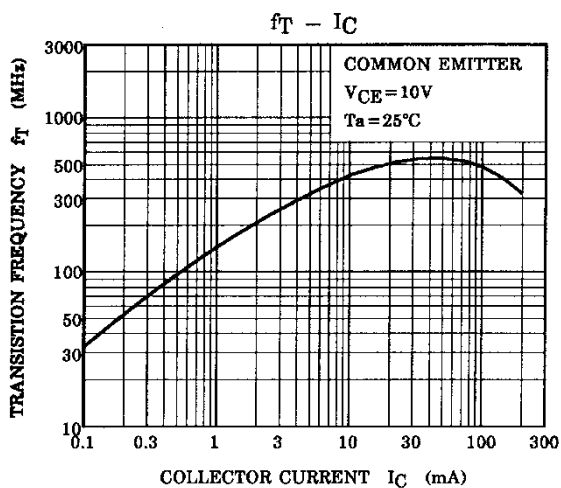
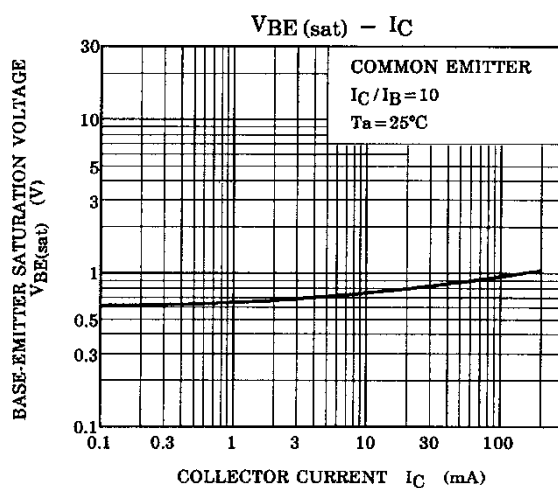
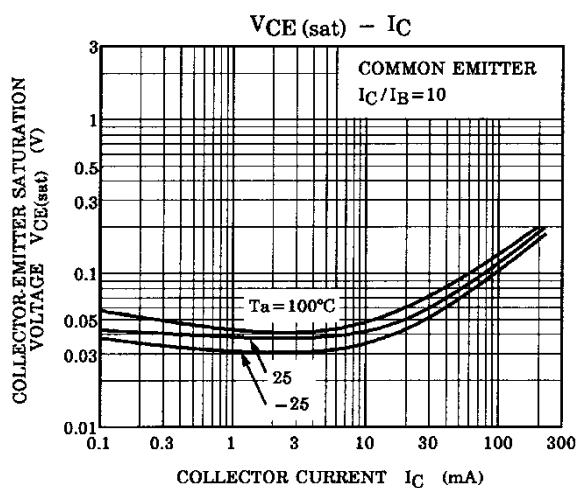
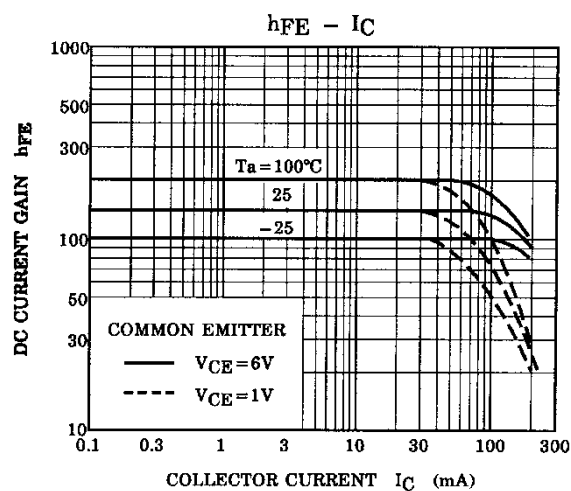
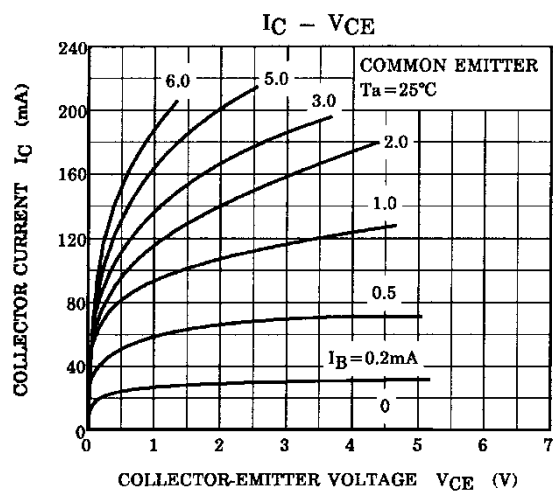
## Electrical Characteristics (Ta = 25°C)

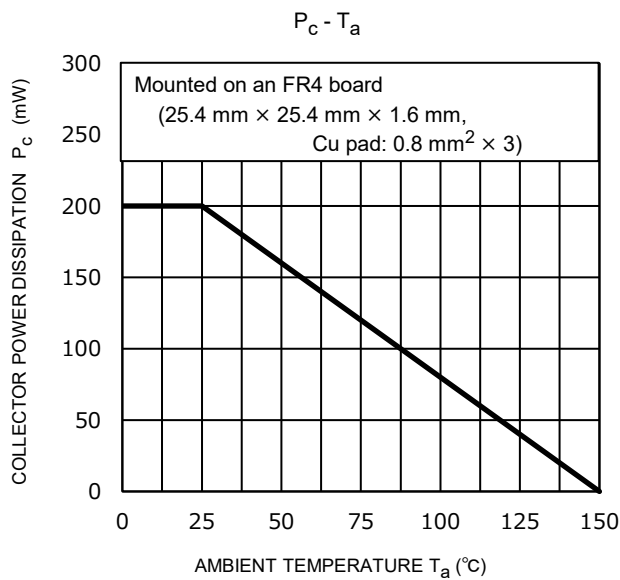
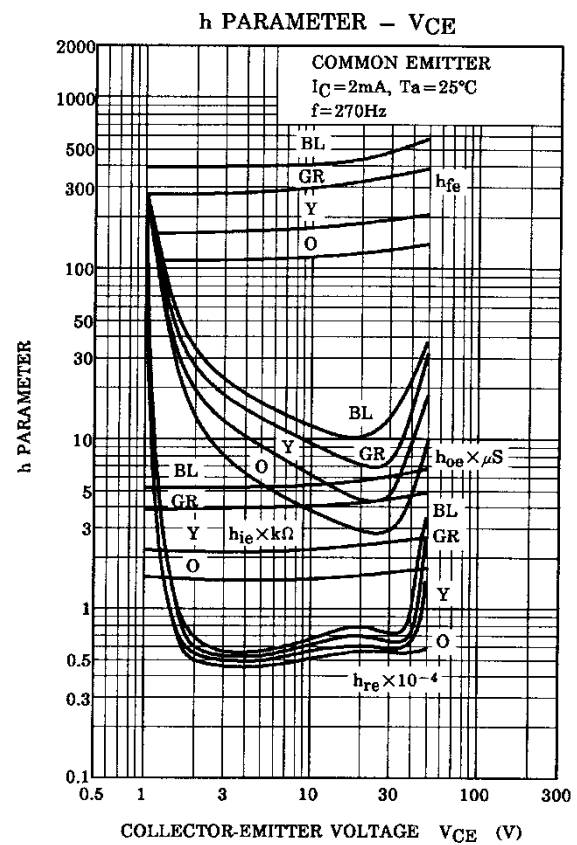
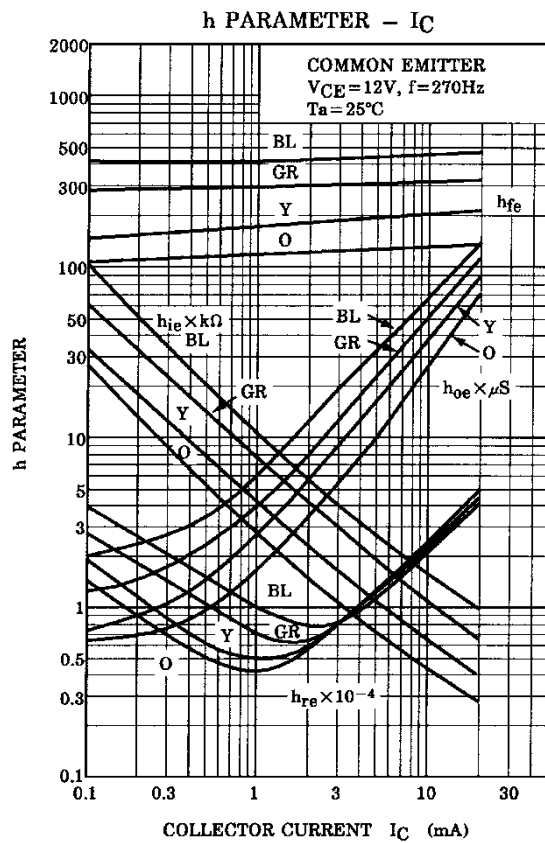
| Characteristics                      | Symbol                    | Test Condition                                                                       | Min | Typ. | Max  | Unit |
|--------------------------------------|---------------------------|--------------------------------------------------------------------------------------|-----|------|------|------|
| Collector cut-off current            | ICBO                      | V <sub>CB</sub> = 60 V, I <sub>E</sub> = 0 A                                         | —   | —    | 0.1  | μA   |
| Emitter cut-off current              | IEBO                      | V <sub>EB</sub> = 5 V, I <sub>C</sub> = 0 A                                          | —   | —    | 0.1  | μA   |
| DC current gain                      | h <sub>FE</sub><br>(Note) | V <sub>CE</sub> = 6 V, I <sub>C</sub> = 2 mA                                         | 70  | —    | 700  | —    |
| Collector-emitter saturation voltage | V <sub>CE (sat)</sub>     | I <sub>C</sub> = 100 mA, I <sub>B</sub> = 10 mA                                      | —   | 0.1  | 0.25 | V    |
| Transition frequency                 | f <sub>T</sub>            | V <sub>CE</sub> = 10 V, I <sub>C</sub> = 1 mA                                        | 80  | —    | —    | MHz  |
| Collector output capacitance         | C <sub>ob</sub>           | V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0 A, f = 1 MHz                              | —   | 2.0  | 3.5  | pF   |
| Noise figure                         | NF                        | V <sub>CE</sub> = 6 V, I <sub>C</sub> = 0.1 mA, f = 1 kHz,<br>R <sub>g</sub> = 10 kΩ | —   | 1.0  | 10   | dB   |

Note: h<sub>FE</sub> classification O (O): 70 to 140, Y (Y): 120 to 240, GR (G): 200 to 400, BL (L): 350 to 700

( ) marking symbol

## Characteristics Curves





The above characteristics curves are presented for reference only and not guaranteed by production test, unless otherwise noted.

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