

HN1A01FU

Audio Frequency General Purpose Amplifier Applications

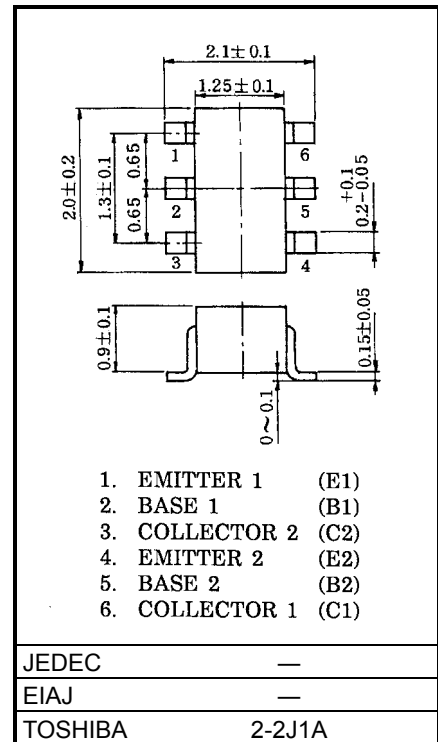
Unit: mm

- Small package (Dual type)
- High voltage and high current
: $V_{CE0} = -50V$, $I_C = -150mA$ (max)
- High h_{FE} : $h_{FE} = 120 \sim 400$
- Excellent h_{FE} linearity
: $h_{FE}(I_C = -0.1mA) / h_{FE}(I_C = -2mA) = 0.95$ (typ.)

Maximum Ratings ($T_a = 25^\circ C$) (Q1, Q2 Common)

| Characteristic | Symbol | Rating | Unit |
|-----------------------------|-----------|---------|------------|
| Collector-base voltage | V_{CBO} | -50 | V |
| Collector-emitter voltage | V_{CEO} | -50 | V |
| Emitter-base voltage | V_{EBO} | -5 | V |
| Collector current | I_C | -150 | mA |
| Base current | I_B | -30 | mA |
| Collector power dissipation | P_C^* | 200 | mW |
| Junction temperature | T_j | 125 | $^\circ C$ |
| Storage temperature range | T_{stg} | -55~125 | $^\circ C$ |

* Total rating



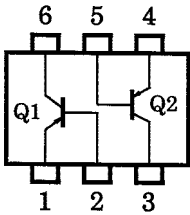
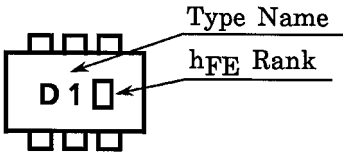
Electrical Characteristics ($T_a = 25^\circ C$) (Q1,Q2 Common)

| Characteristic | Symbol | Test Circuit | Test Condition | Min | Typ. | Max | Unit |
|--------------------------------------|-----------------|--------------|--|-----|------|------|---------|
| Collector cut-off current | I_{CBO} | — | $V_{CB} = -50V$, $I_E = 0$ | — | — | -0.1 | μA |
| Emitter cut-off current | I_{EBO} | — | $V_{EB} = -5V$, $I_C = 0$ | — | — | -0.1 | μA |
| DC current gain | h_{FE} (Note) | — | $V_{CE} = -6V$, $I_C = -2mA$ | 120 | — | 400 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | — | $I_C = -100mA$, $I_B = -10mA$ | — | -0.1 | -0.3 | V |
| Transition frequency | f_T | — | $V_{CE} = -10V$, $I_C = -1mA$ | 80 | — | — | MHz |
| Collector output capacitance | C_{ob} | — | $V_{CB} = -10V$, $I_E = 0$, $f = 1MHz$ | — | 4 | 7 | pF |

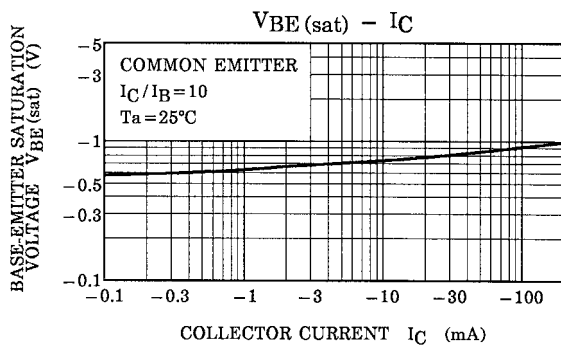
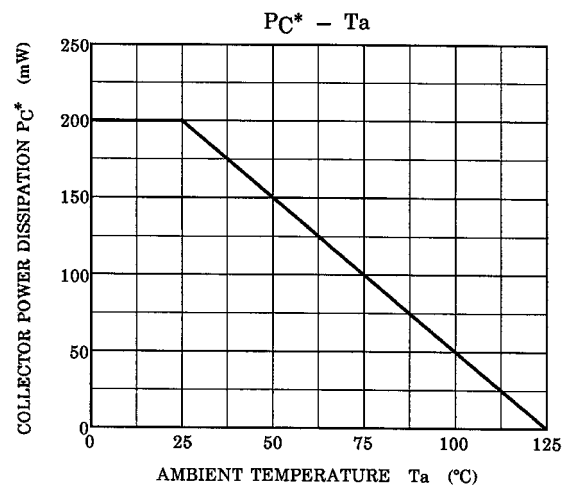
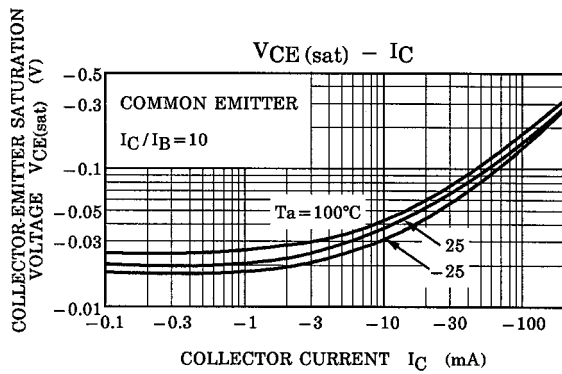
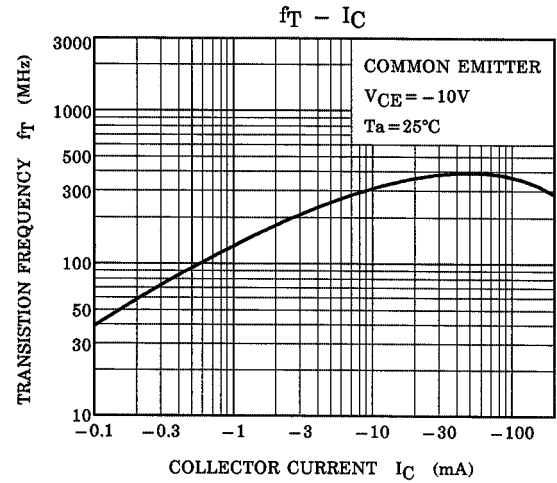
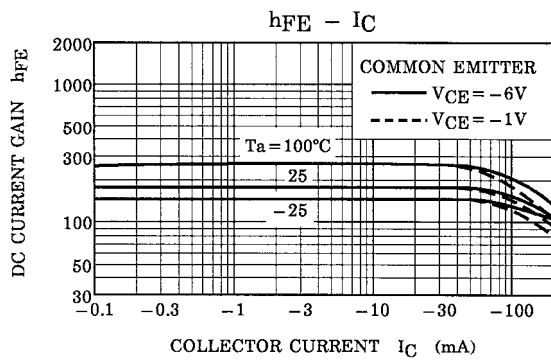
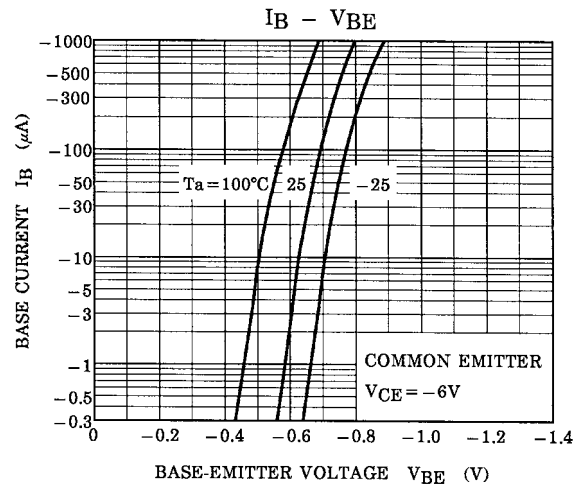
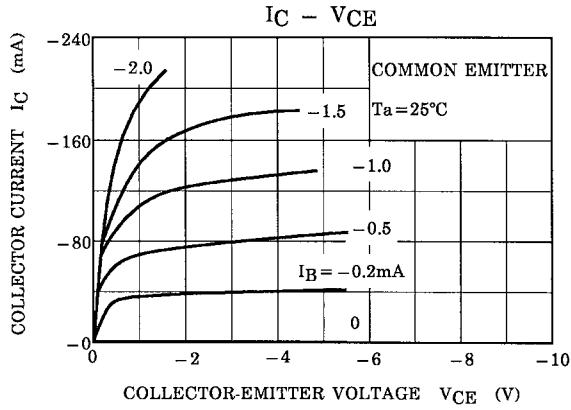
Note: h_{FE} Classification
 Y (Y): 120~240, GR (G): 200~400
 () Marking Symbol

Marking

Equivalent Circuit (Top View)



(Q1,Q2 Common)



*: Total Rating

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