2SB1026

Silicon PNP Epitaxial

HITACHI

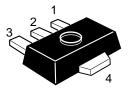
ADE-208-1037 (Z) 1st. Edition Mar. 2001

Application

- Low frequency power amplifier
- Complementary pair with 2SD1419

Outline

UPAK



- 1. Base
- 2. Collector
- 3. Emitter
- 4. Collector (Flange)



2SB1026

Absolute Maximum Ratings $(Ta = 25^{\circ}C)$

| Item | Symbol | Ratings | Unit |
|------------------------------|-------------------------|-------------|------|
| Collector to base voltage | V_{CBO} | -120 | V |
| Collector to emitter voltage | V _{CEO} | -100 | V |
| Emitter to base voltage | V_{EBO} | – 5 | V |
| Collector current | I _c | –1 | A |
| Collector peak current | i _{C(peak)} *1 | -2 | A |
| Collector power dissipation | P _C *2 | 1 | W |
| Junction temperature | Tj | 150 | °C |
| Storage temperature | Tstg | -55 to +150 | °C |

Notes: 1. PW ≤ 10 ms, Duty cycle ≤ 20%

2. Value on the alumina ceramic board (12.5 \times 20 \times 0.7 mm)

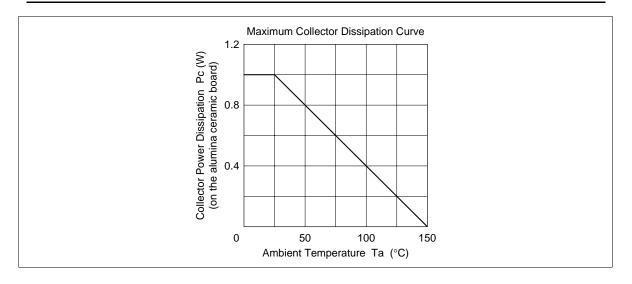
Electrical Characteristics ($Ta = 25^{\circ}C$)

| Item | Symbol | Min | Тур | Max | Unit | Test conditions |
|-----------------------------------------|----------------------|------------|-----|------|------|---------------------------------------------------------------------|
| Collector to base breakdown voltage | $V_{(BR)CBO}$ | -120 | _ | _ | V | $I_{c} = -10 \ \mu A, \ I_{E} = 0$ |
| Collector to emitter breakdown voltage | $V_{(BR)CEO}$ | -100 | _ | _ | V | $I_{C} = -1 \text{ mA}, R_{BE} = \infty$ |
| Emitter to base breakdown voltage | $V_{(BR)EBO}$ | - 5 | _ | _ | V | $I_E = -10 \mu A, I_C = 0$ |
| Collector cutoff current | I _{CBO} | _ | _ | -10 | μΑ | $V_{CB} = -100 \text{ V}, I_{E} = 0$ |
| DC current transfer ratio | h _{FE1} *1 | 60 | _ | 200 | | $V_{CE} = -5 \text{ V}, I_{C} = -150 \text{ mA}$ |
| | h _{FE2} | 30 | _ | _ | | $V_{CE} = -5 \text{ V},$ $I_{C} = -500 \text{ mA (Pulse test)}$ |
| Collector to emitter saturation voltage | $V_{\text{CE(sat)}}$ | _ | _ | -1 | V | $I_{c} = -500 \text{ mA},$ $I_{B} = -50 \text{ mA (Pulse test)}$ |
| Base to emitter voltage | V_{BE} | _ | _ | -0.9 | V | $V_{CE} = -5 \text{ V}, I_{C} = -150 \text{ mA}$ |
| Gain bandwidth product | f _T | _ | 140 | _ | MHz | $V_{CE} = -5 \text{ V}, I_{C} = -150 \text{ mA}$ |
| Collector output capacitance | Cob | _ | 20 | _ | pF | $V_{CB} = -10 \text{ V}, I_{E} = 0,$ f = 1 MHz |

Note: 1. The 2SB1026 is grouped by h_{FE1} as follows.

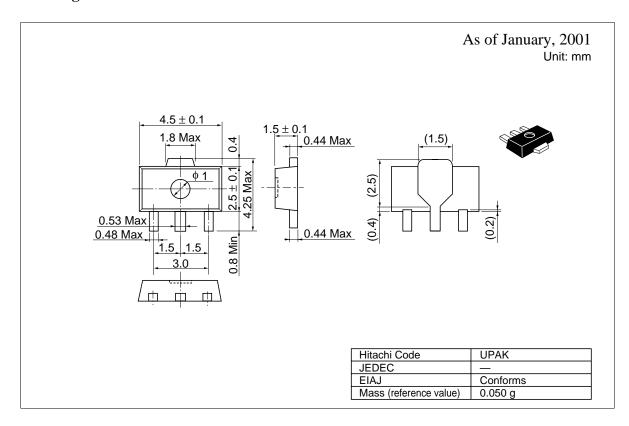
| Mark | DL | DM |
|------------------|-----------|------------|
| h _{FE1} | 60 to 120 | 100 to 200 |

See characteristic curves of 2SB1025.



2SB1026

Package Dimensions



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