

2SB1026

Silicon PNP Epitaxial

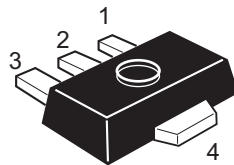
REJ03G0662-0200
(Previous ADE-208-1037)
Rev.2.00
Aug.10.2005

Application

- Low frequency power amplifier
- Complementary pair with 2SD1419

Outline

RENESAS Package code: PLZZ0004CA-A
(Package name: UPAK[®])



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

*UPAK is a trademark of Renesas Technology Corp.

Absolute Maximum Ratings

(Ta = 25°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 | T _J | 150 | °C |
| Storage temperature | T _{stg} | -55 to +150 | °C |

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

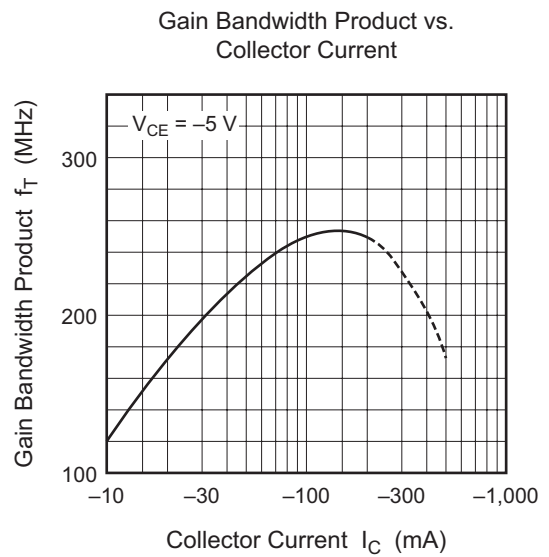
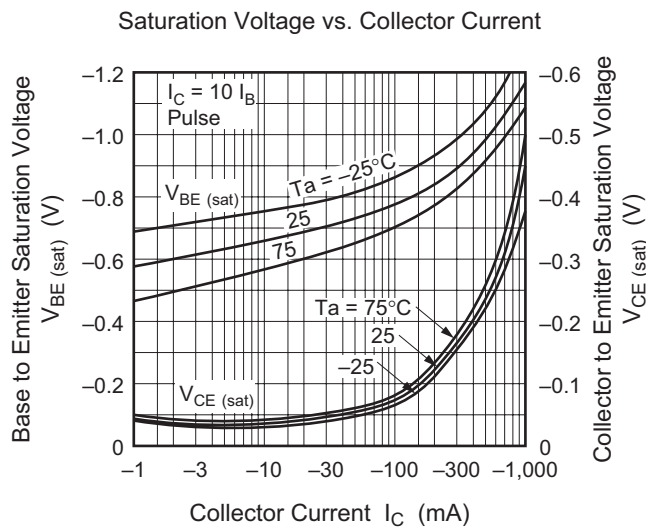
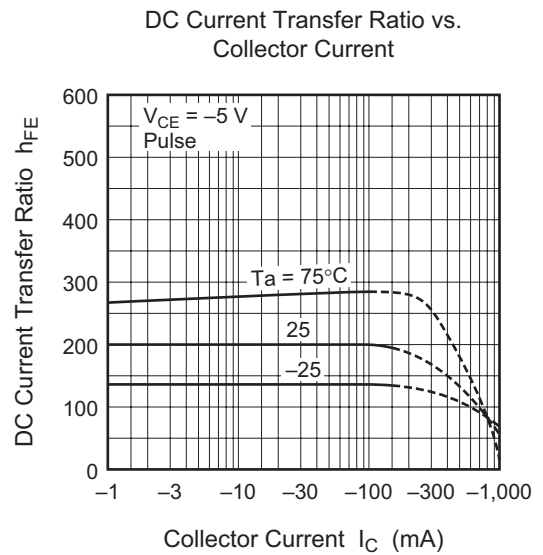
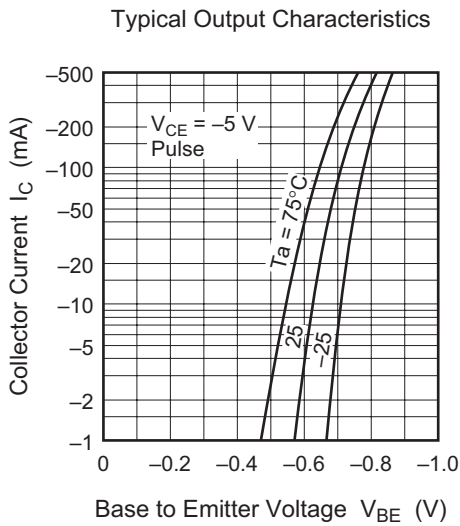
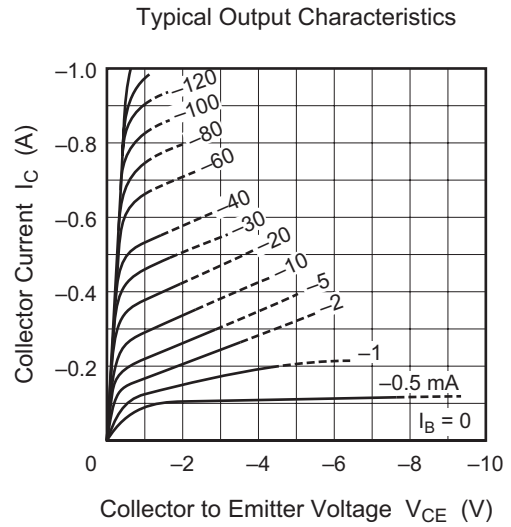
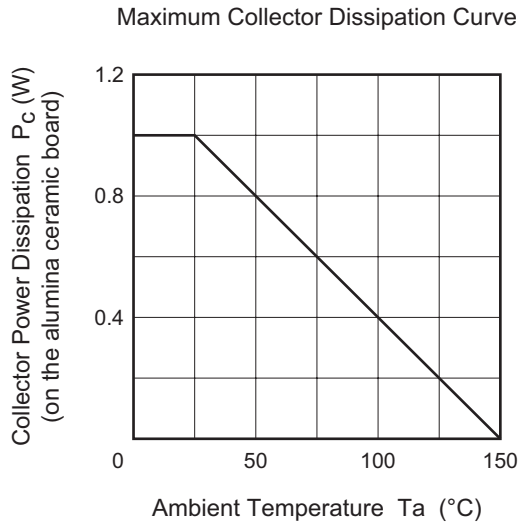
2. Value on the alumina ceramic board (12.5 × 20 × 0.7 mm)

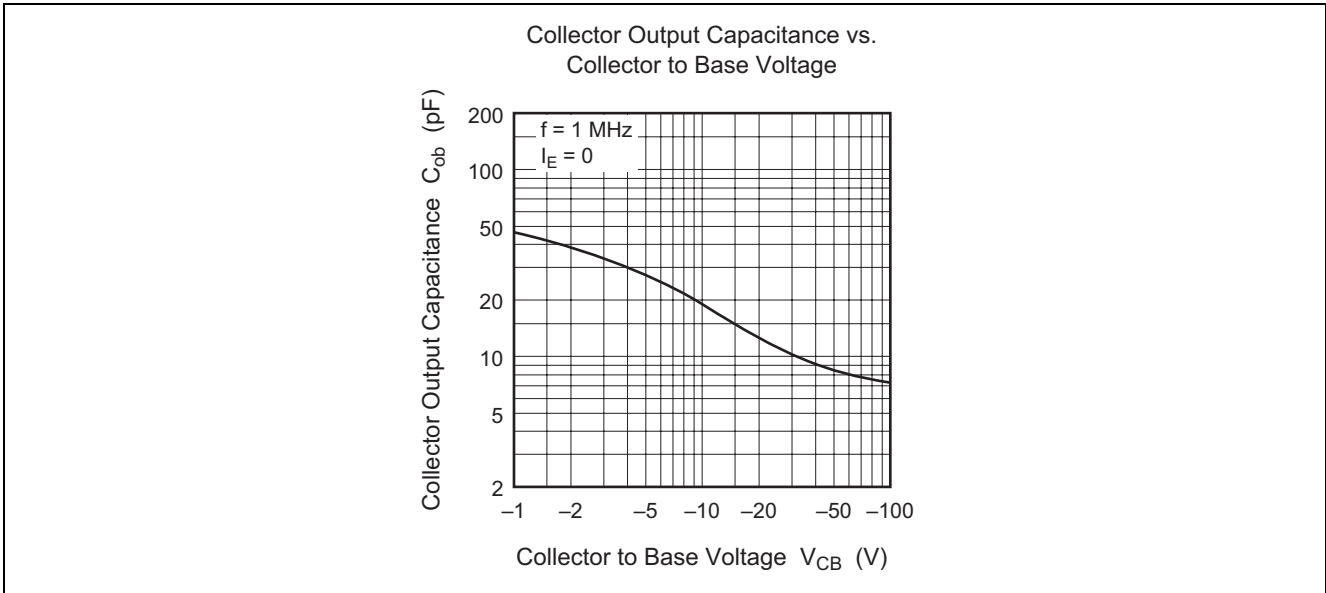
Electrical Characteristics

(Ta = 25°C)

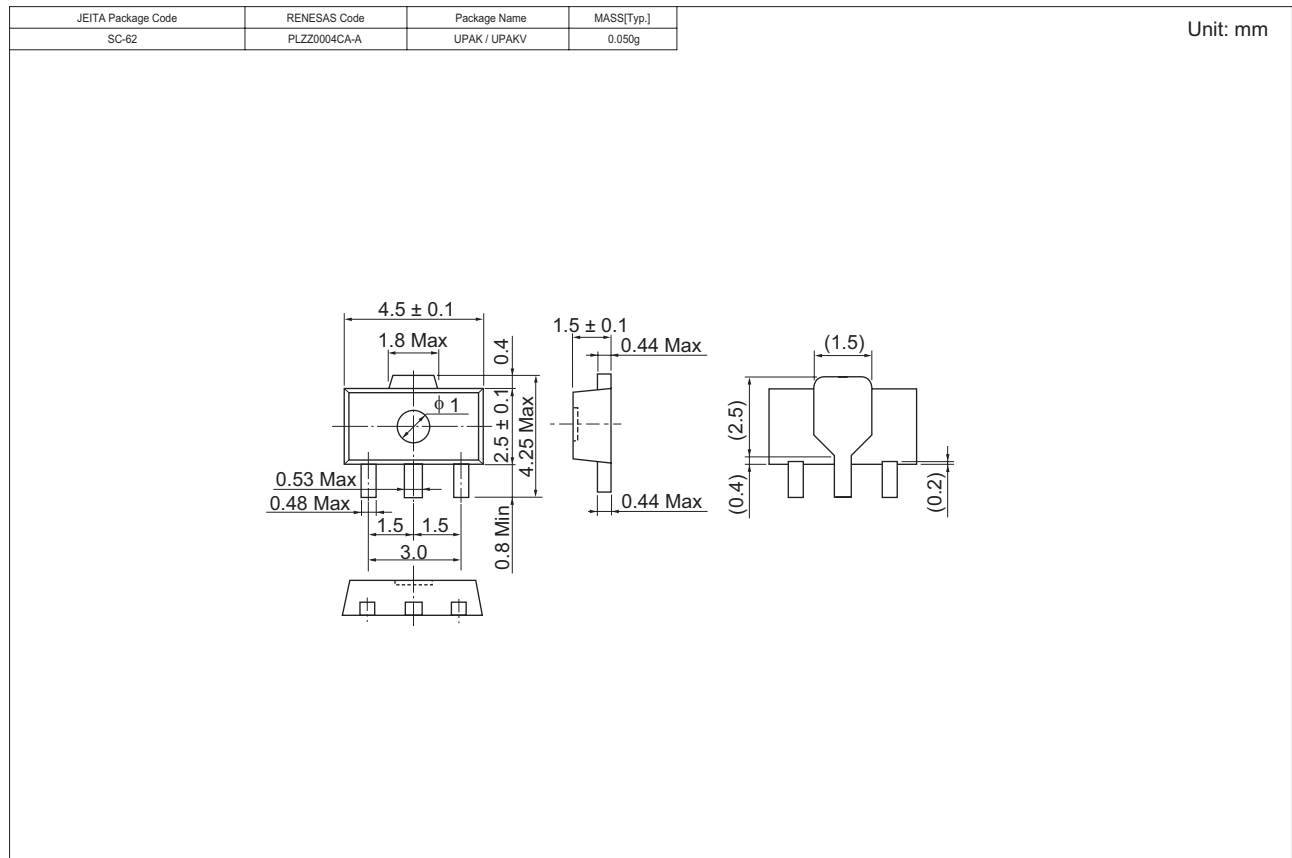
| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|---------------|------|-----|------|---------|--|
| Collector to base breakdown voltage | $V_{(BR)CBO}$ | -120 | — | — | V | $I_C = -10 \mu A, I_E = 0$ |
| Collector to emitter breakdown voltage | $V_{(BR)CEO}$ | -100 | — | — | V | $I_C = -1 \text{ mA}, R_{BE} = \infty$ |
| Emitter to base breakdown voltage | $V_{(BR)EBO}$ | -5 | — | — | V | $I_E = -10 \mu A, I_C = 0$ |
| Collector cutoff current | I_{CBO} | — | — | -10 | μA | $V_{CB} = -100 \text{ V}, I_E = 0$ |
| DC current transfer ratio | h_{FE1} | 100 | — | 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 | $V_{CE(sat)}$ | — | — | -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 | C_{ob} | — | 20 | — | pF | $V_{CB} = -10 \text{ V}, I_E = 0,$ $f = 1 \text{ MHz}$ |

Main Characteristics





Package Dimensions



Ordering Information

| Part Name | Quantity | Shipping Container |
|---------------|----------|---|
| 2SB1026DMTL-E | 1000 | ϕ 178 mm Reel, 12 mm Emboss Taping |

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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