

To our customers,

Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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Not recommended
for new design

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2SD1101

Silicon NPN Epitaxial

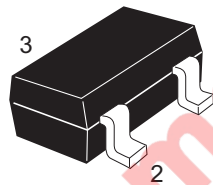
REJ03G0775-0200
 (Previous ADE-208-1142)
 Rev.2.00
 Aug.10.2005

Application

- Low frequency amplifier
- Complementary pair with 2SB831

Outline

RENESAS Package code: PLSP0003ZB-A
 (Package name: MPAK)



1. Emitter
2. Base
3. Collector

Note: Marking is "AC".

Absolute Maximum Ratings

(Ta = 25°C)

| Item | Symbol | Ratings | Unit |
|------------------------------|---------------|-------------|------|
| Collector to base voltage | V_{CBO} | 25 | V |
| Collector to emitter voltage | V_{CEO} | 20 | V |
| Emitter to base voltage | V_{EBO} | 5 | V |
| Collector current | I_C | 0.7 | A |
| Collector peak current | $i_{C(peak)}$ | 1 | A |
| Collector power dissipation | P_C | 150 | mW |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T_{stg} | -55 to +150 | °C |

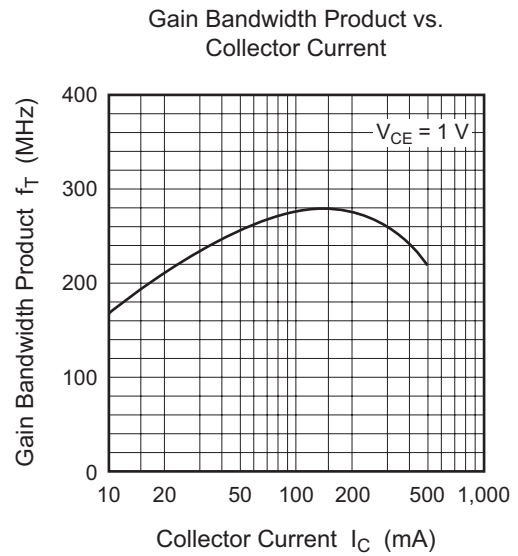
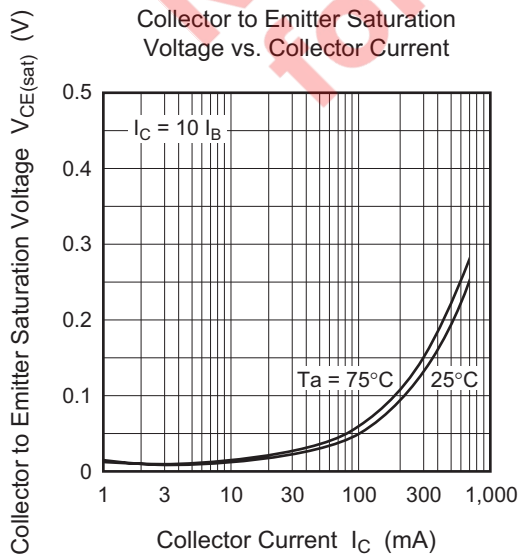
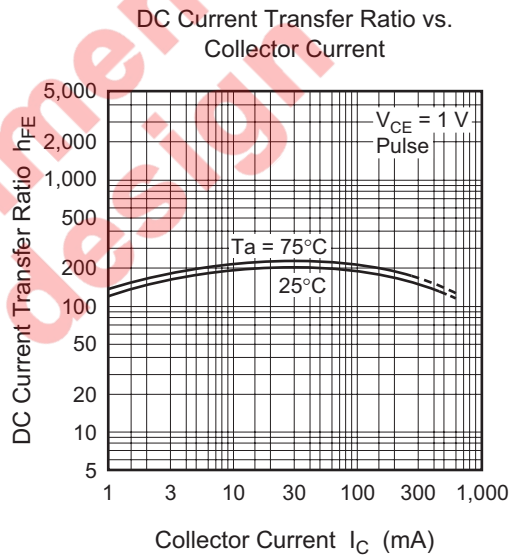
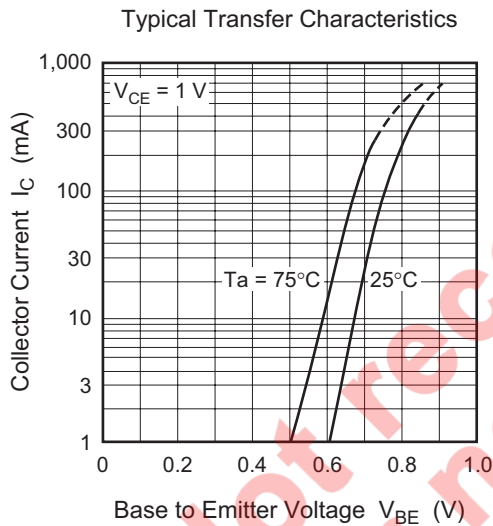
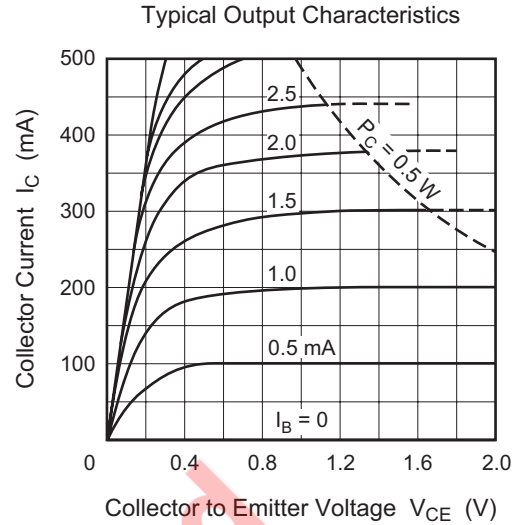
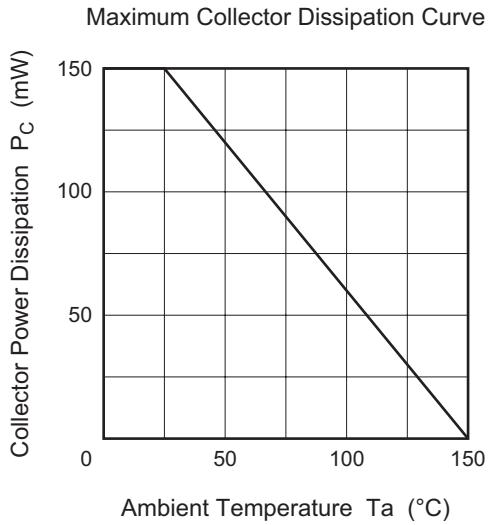
Electrical Characteristics

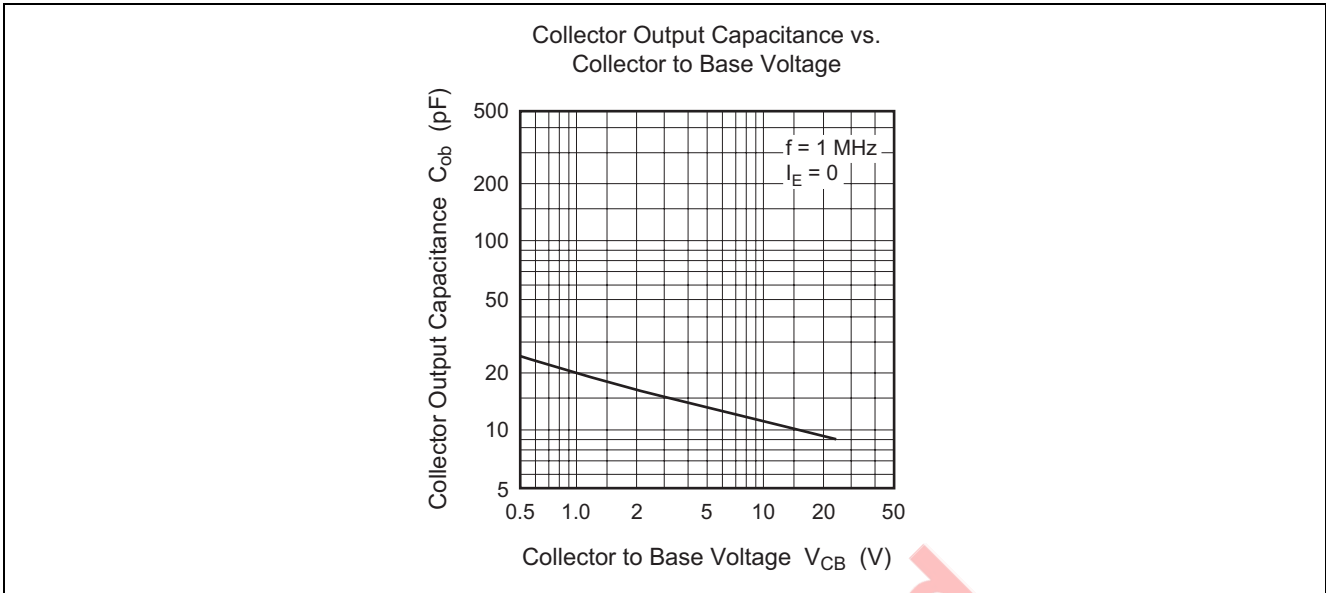
(Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|---------------|-----|-----|-----|---------|--|
| Collector to base breakdown voltage | $V_{(BR)CBO}$ | 25 | — | — | V | $I_C = 10 \mu A, I_E = 0$ |
| Collector to emitter breakdown voltage | $V_{(BR)CEO}$ | 20 | — | — | 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} | — | — | 1.0 | μA | $V_{CB} = 20 \text{ V}, I_E = 0$ |
| DC current transfer ratio | h_{FE} | 120 | — | 240 | | $V_{CE} = 1 \text{ V}, I_C = 0.15 \text{ A}$ |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | — | — | 0.5 | V | $I_C = 0.5 \text{ A}, I_B = 0.05 \text{ A}$ |
| Base to emitter voltage | V_{BE} | — | — | 1.0 | V | $V_{CE} = 1 \text{ V}, I_C = 0.15 \text{ A}$ |

Not recommend
for new design

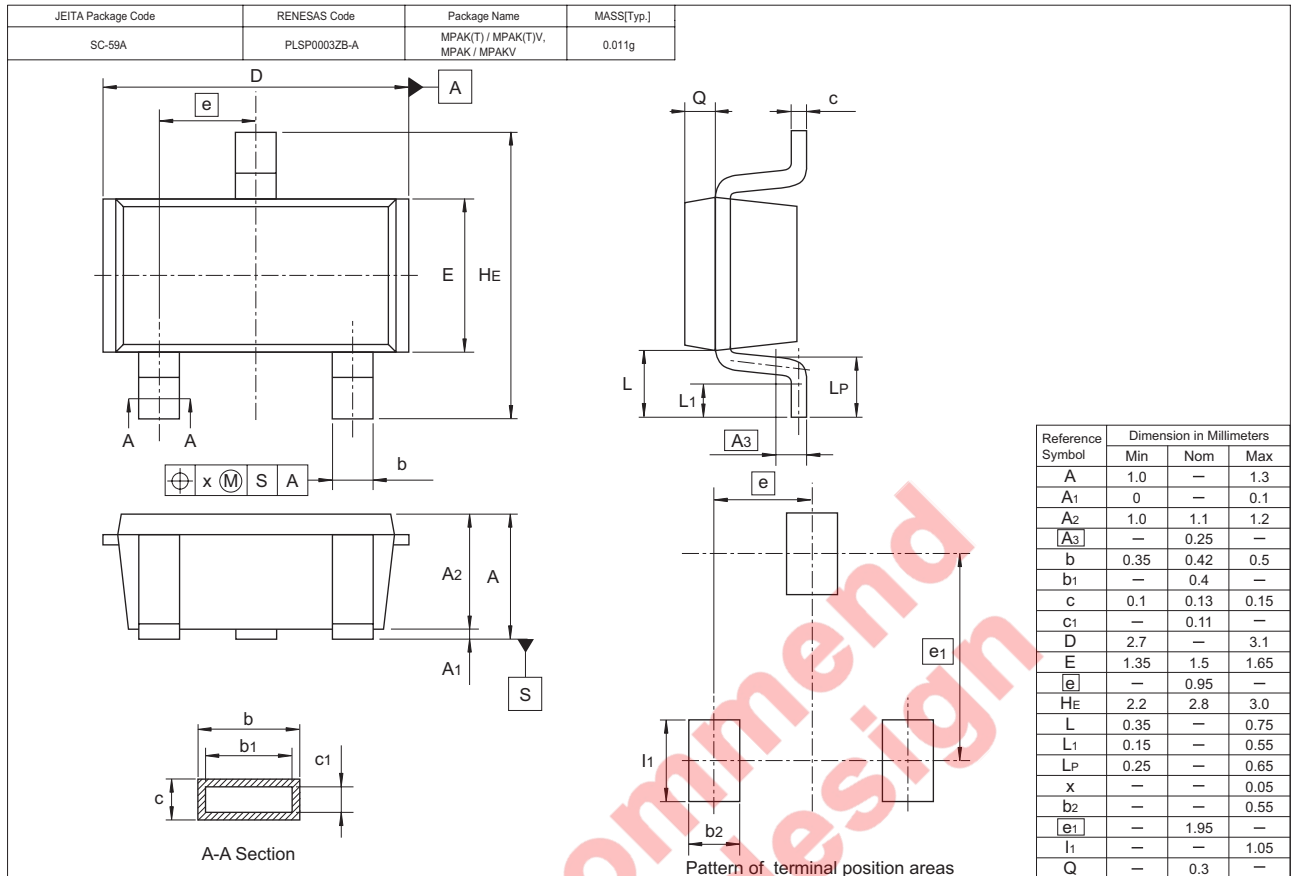
Main Characteristics





Not recommended for new design

Package Dimensions



Ordering Information

| Part Name | Quantity | Shipping Container |
|---------------|----------|-----------------------------------|
| 2SD1101ACTL-E | 3000 | φ 178 mm Reel, 8 mm Emboss Taping |

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