

2SC1921

Silicon NPN Triple Diffused

REJ03G0695-0200
(Previous ADE-208-1060)
Rev.2.00
Aug.10.2005

Application

- High frequency high voltage amplifier
- Video output

Outline

RENESAS Package code: PRSS0003DC-A
(Package name: TO-92 Mod)



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings

(Ta = 25°C)

| Item | Symbol | Ratings | Unit |
|------------------------------|-----------|-------------|------|
| Collector to base voltage | V_{CBO} | 250 | V |
| Collector to emitter voltage | V_{CEO} | 200 | V |
| Emitter to base voltage | V_{EBO} | 5 | V |
| Collector current | I_C | 50 | mA |
| Collector power dissipation | P_C | 600 | mW |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T_{stg} | -55 to +150 | °C |

Electrical Characteristics

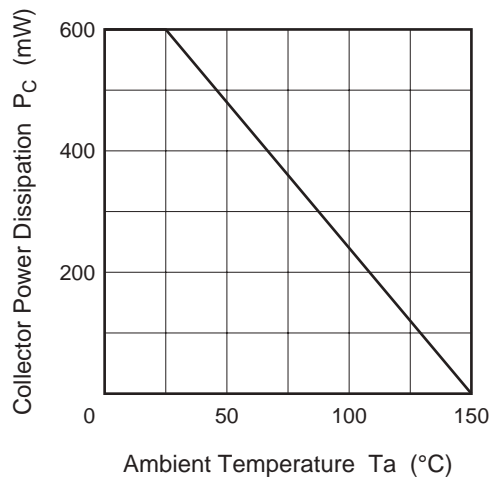
(Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|---------------|-----|-----|-----|---------|--------------------------------------|
| Collector to base breakdown voltage | $V_{(BR)CBO}$ | 250 | — | — | V | $I_C = 10\ \mu A, I_E = 0$ |
| Collector to emitter breakdown voltage | $V_{(BR)CEO}$ | 200 | — | — | V | $I_C = 1\ mA, R_{BE} = \infty$ |
| Emitter to base breakdown voltage | $V_{(BR)EBO}$ | 5 | — | — | V | $I_E = 10\ \mu A, I_C = 0$ |
| Collector cutoff current | I_{CEO} | — | — | 1.0 | μA | $V_{CE} = 120\ V, R_{BE} = \infty$ |
| DC current transfer ratio | h_{FE} | 30 | — | 300 | | $V_{CE} = 6\ V, I_C = 10\ mA$ |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | — | — | 1.0 | V | $I_C = 10\ mA, I_B = 1\ mA$ |
| Gain bandwidth product | f_T | 60 | 130 | — | MHz | $V_{CE} = 6\ V, I_C = 10\ mA$ |
| Collector output capacitance | C_{ob} | — | 3 | 4 | pF | $V_{CB} = 6\ V, I_E = 0, f = 1\ MHz$ |

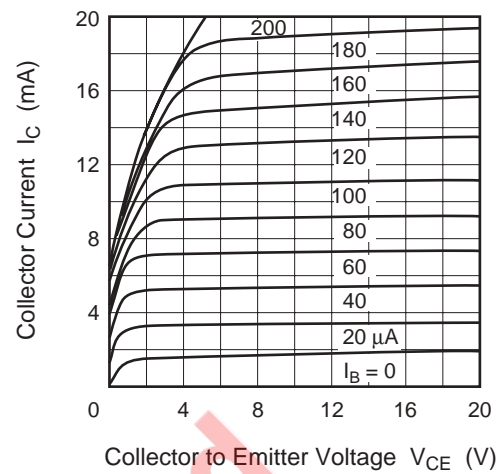
Not recommend
for new design

Main Characteristics

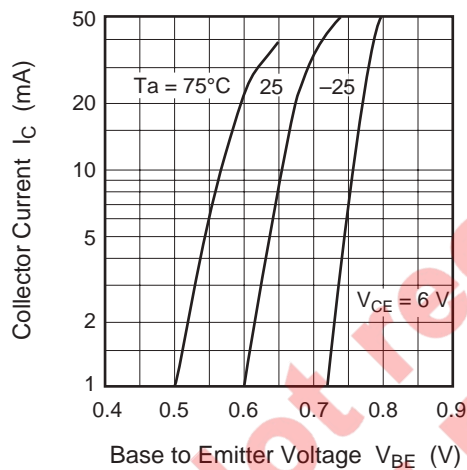
Maximum Collector Dissipation Curve



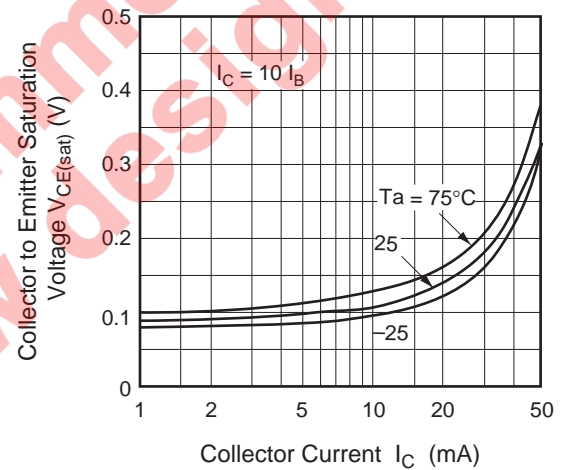
Typical Output Characteristics



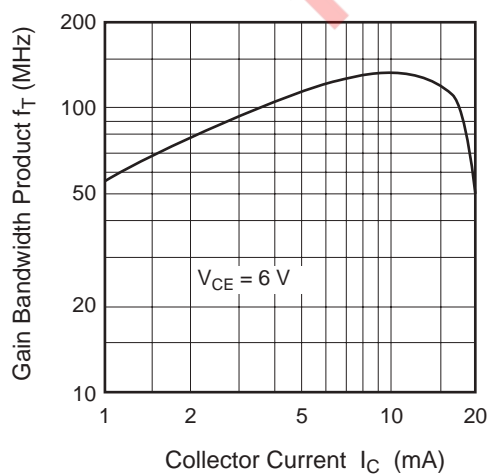
Typical Transfer Characteristics



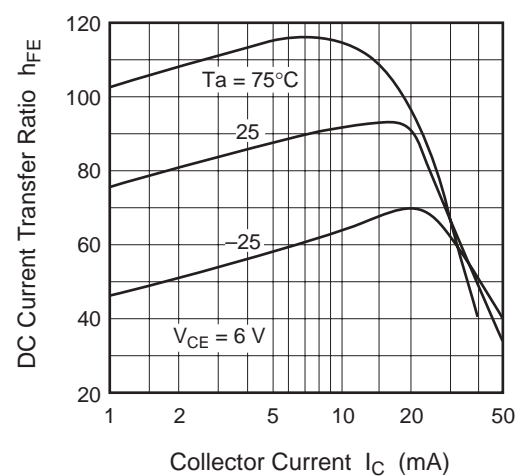
Collector to Emitter Saturation Voltage vs. Collector Current

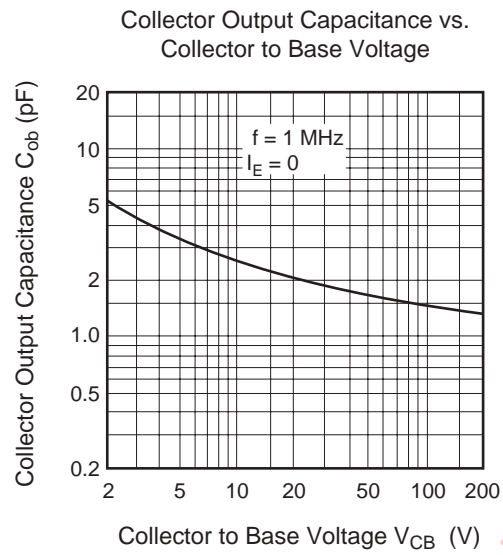


Gain Bandwidth Product vs. Collector Current



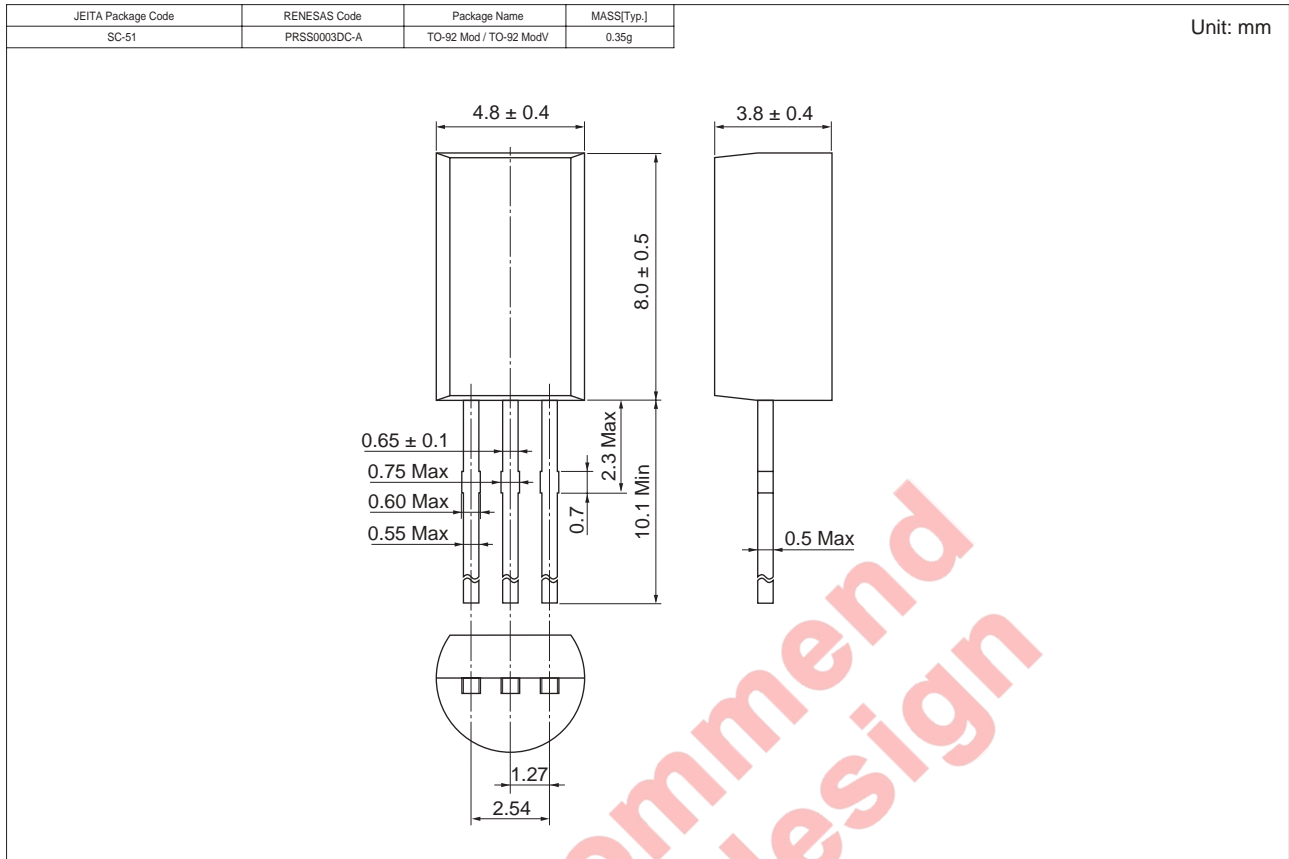
DC Current Transfer Ratio vs. Collector Current





Not recommended
for new design

Package Dimensions



Ordering Information

| Part Name | Quantity | Shipping Container |
|-------------|----------|-------------------------|
| 2SC1921TZ-E | 2500 | Hold Box, Radial 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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450 Holger Way, San Jose, CA 95134-1368, U.S.A
Tel: <1> (408) 382-7500, Fax: <1> (408) 382-7501

Renesas Technology Europe Limited

Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K.
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Renesas Technology Hong Kong Ltd.

7th Floor, North Tower, World Finance Centre, Harbour City, 1 Canton Road, Tsimshatsui, Kowloon, Hong Kong
Tel: <852> 2265-6688, Fax: <852> 2730-6071

Renesas Technology Taiwan Co., Ltd.

10th Floor, No.99, Fushing North Road, Taipei, Taiwan
Tel: <886> (2) 2715-2888, Fax: <886> (2) 2713-2999

Renesas Technology (Shanghai) Co., Ltd.

Unit2607 Ruijing Building, No.205 Maoming Road (S), Shanghai 200020, China
Tel: <86> (21) 6472-1001, Fax: <86> (21) 6415-2952

Renesas Technology Singapore Pte. Ltd.

1 Harbour Front Avenue, #06-10, Keppel Bay Tower, Singapore 098632
Tel: <65> 6213-0200, Fax: <65> 6278-8001

Renesas Technology Korea Co., Ltd.

Kukje Center Bldg. 18th Fl., 191, 2-ka, Hangang-ro, Yongsan-ku, Seoul 140-702, Korea
Tel: <82> 2-796-3115, Fax: <82> 2-796-2145

Renesas Technology Malaysia Sdn. Bhd.

Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No.18, Jalan Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia
Tel: <603> 7955-9390, Fax: <603> 7955-9510