

2SC4702

R07DS0275EJ0400
(Previous: REJ03G0729-0300)

Silicon NPN Epitaxial

Rev.4.00
Mar 28, 2011

Application

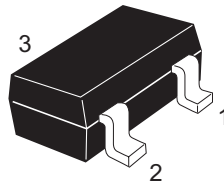
High voltage amplifier

Features

- High breakdown voltage
 $V_{CEO} = 300\text{ V}$
- Small Cob
Cob = 1.5 pF Typ.

Outline

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



1. Emitter
2. Base
3. Collector

Note: Marking is "XV-".

Absolute Maximum Ratings

($T_a = 25^\circ\text{C}$)

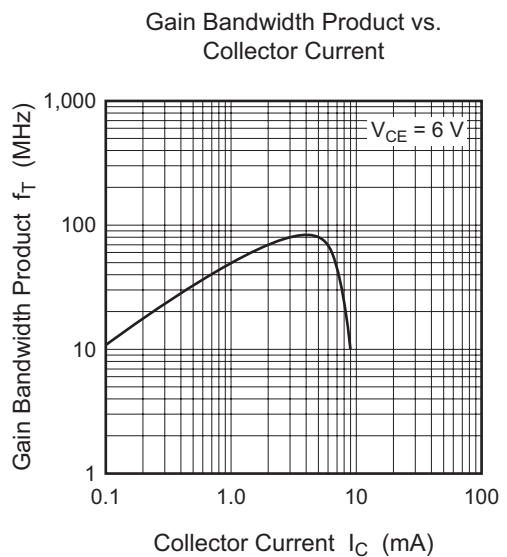
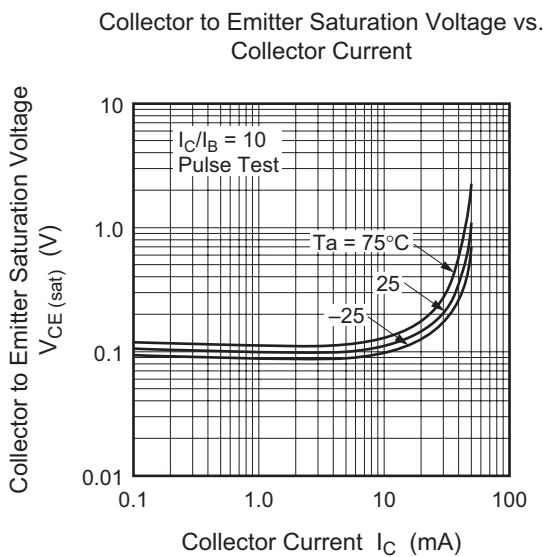
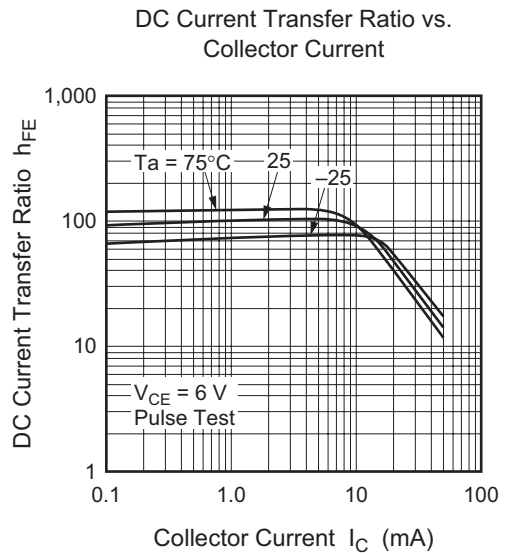
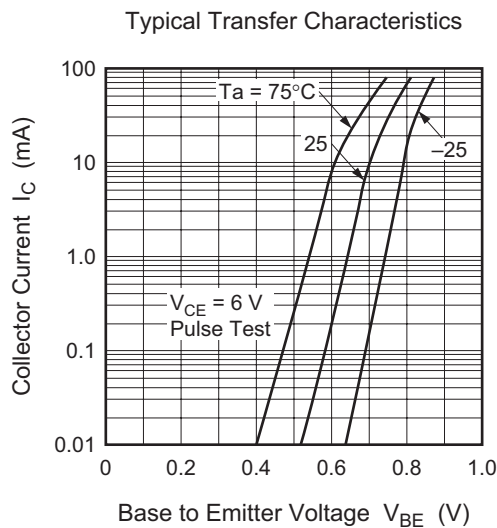
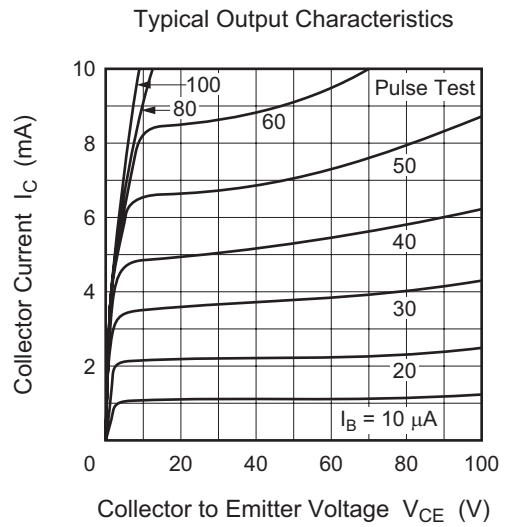
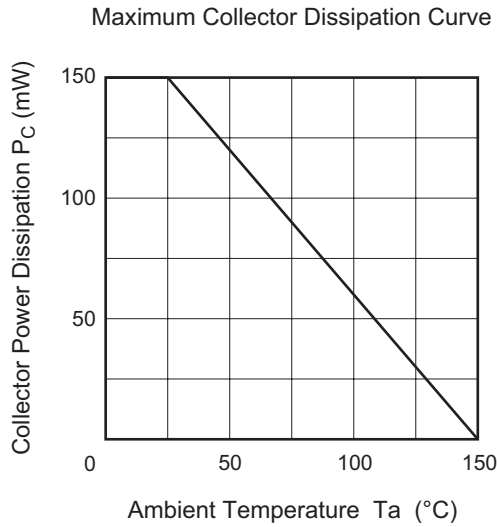
| Item | Symbol | Ratings | Unit |
|------------------------------|-----------|-------------|------------------|
| Collector to base voltage | V_{CBO} | 300 | V |
| Collector to emitter voltage | V_{CEO} | 300 | V |
| Emitter to base voltage | V_{EBO} | 5 | V |
| Collector current | I_C | 50 | mA |
| Collector power dissipation | P_C | 150 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

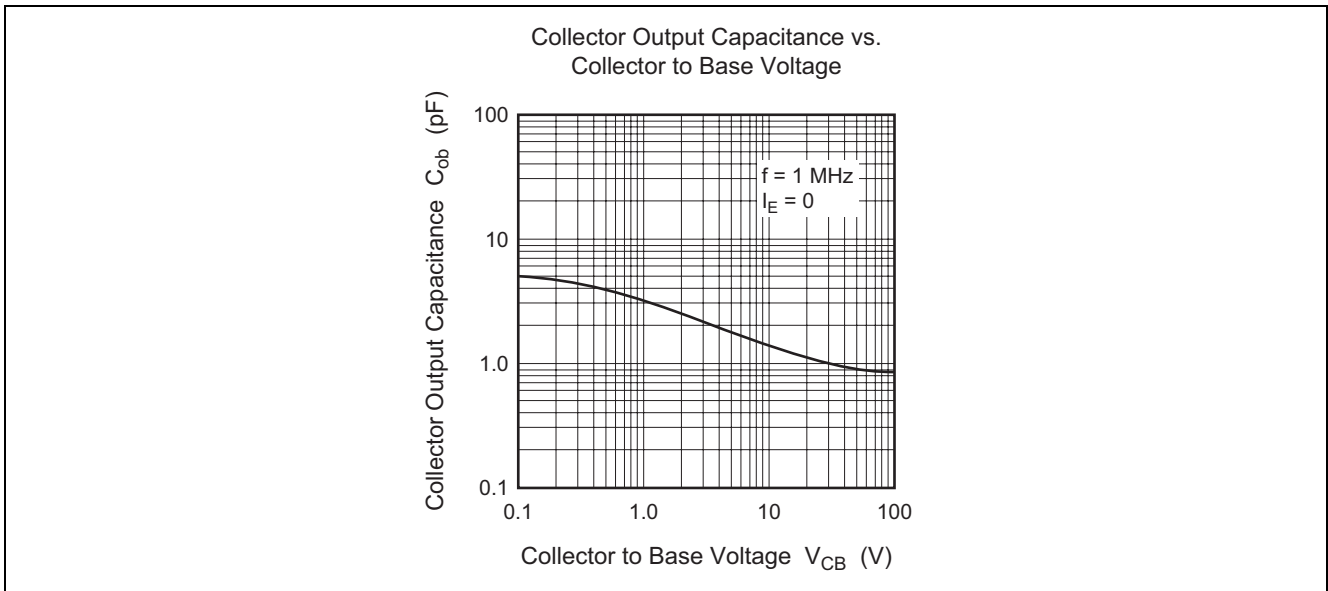
Electrical Characteristics

(Ta = 25°C)

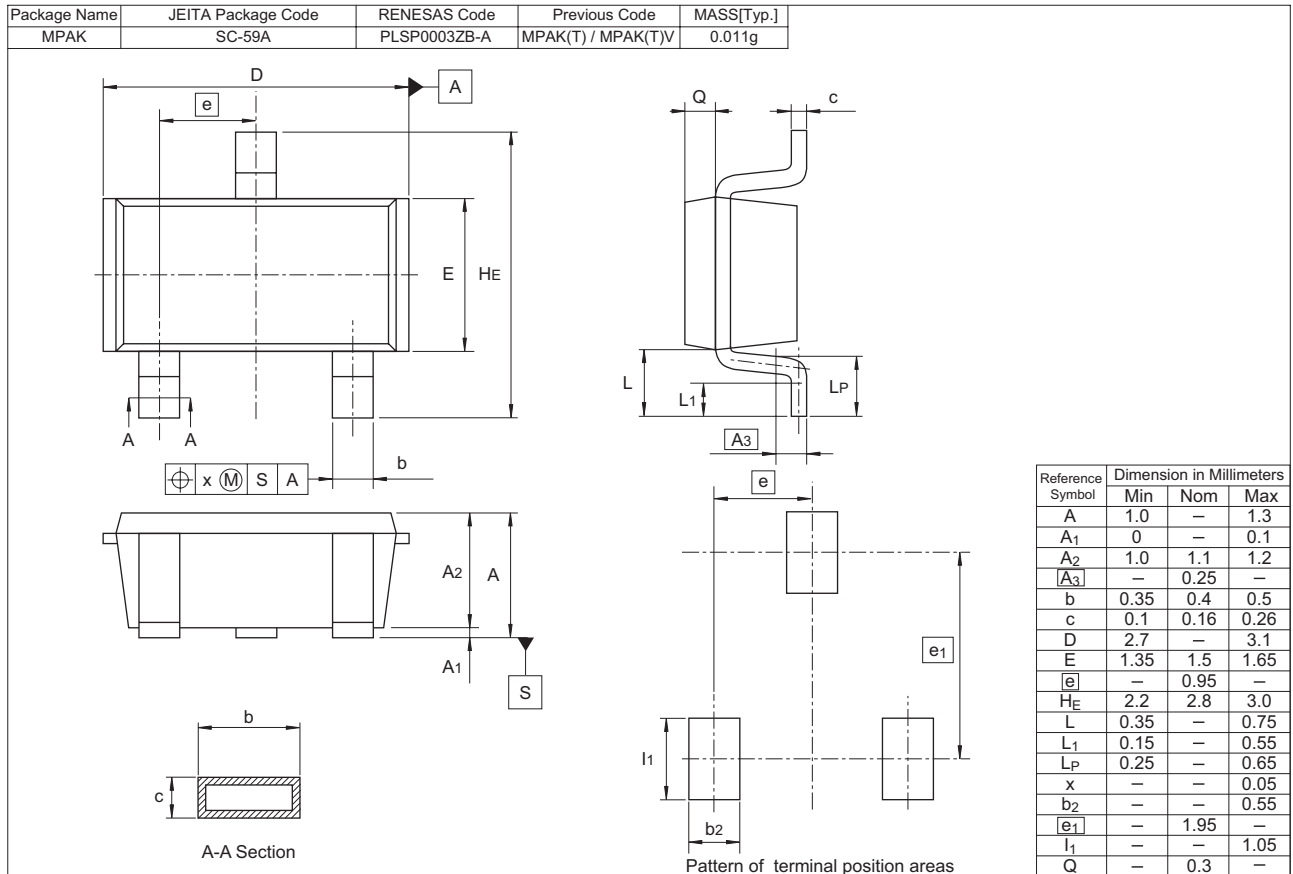
| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|---------------|-----|-----|-----|---------|---|
| Collector to base breakdown voltage | $V_{(BR)CBO}$ | 300 | — | — | V | $I_C = 10 \mu A, I_E = 0$ |
| Collector to emitter breakdown voltage | $V_{(BR)CEO}$ | 300 | — | — | V | $I_C = 1 \text{ mA}, R_{BE} = \infty$ |
| Emitter to base breakdown voltage | $V_{(BR)EBO}$ | 5 | — | — | V | $I_E = 10 \mu A, I_C = 0$ |
| Collector cutoff current | I_{CBO} | — | — | 0.1 | μA | $V_{CB} = 250 \text{ V}, I_E = 0$ |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | — | — | 0.5 | V | $I_C = 30 \text{ mA}, I_B = 3 \text{ mA}$ |
| DC current transfer ratio | h_{FE} | 60 | — | 150 | | $V_{CE} = 6 \text{ V}, I_C = 2 \text{ mA}$ |
| Gain bandwidth product | f_T | — | 80 | — | MHz | $V_{CE} = 6 \text{ V}, I_C = 5 \text{ mA}$ |
| Collector output capacitance | C_{ob} | — | 1.5 | — | pF | $V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$ |

Main Characteristics





Package Dimensions



Ordering Information

| Orderable Part Number | Quantity | Shipping Container |
|-----------------------|----------|-----------------------------------|
| 2SC4702XV-TR-E | 3000 | φ 178 mm Reel, 8 mm Emboss Taping |
| 2SC4702XV-TR-H | | |

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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