

To all our customers

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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

Cautions

Keep safety first in your circuit designs!

1. Renesas Technology Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage.

Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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2SC2463

Silicon NPN Epitaxial

RENESAS

ADE-208-1064 (Z)

1st. Edition

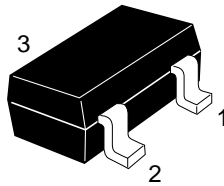
Mar. 2001

Application

Low frequency amplifier

Outline

MPAK



- 1. Emitter
- 2. Base
- 3. Collector

Absolute Maximum Ratings (Ta = 25°C)

| Item | Symbol | Ratings | Unit |
|------------------------------|-----------|-------------|------|
| Collector to base voltage | V_{CBO} | 55 | V |
| Collector to emitter voltage | V_{CEO} | 50 | V |
| Emitter to base voltage | V_{EBO} | 5 | V |
| Collector current | I_C | 100 | mA |
| Collector power dissipation | P_C | 150 | mW |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T_{stg} | -55 to +150 | °C |

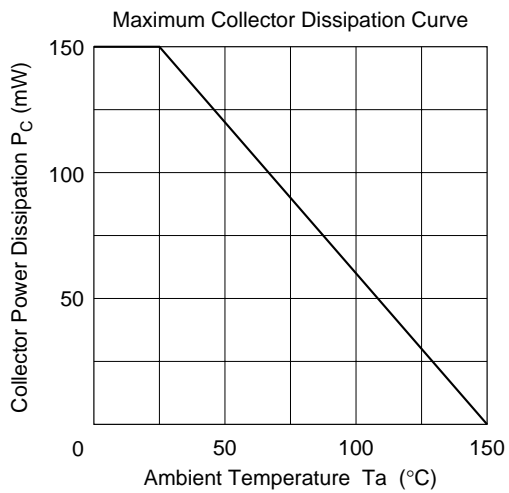
Electrical Characteristics (Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|---------------|-----|-----|------|---------|---|
| Collector to base breakdown voltage | $V_{(BR)CBO}$ | 55 | — | — | V | $I_C = 10 \mu A, I_E = 0$ |
| Collector to emitter breakdown voltage | $V_{(BR)CEO}$ | 50 | — | — | V | $I_C = 1 \text{ mA}, R_{BE} =$ |
| Emitter to base breakdown voltage | $V_{(BR)EBO}$ | 5 | — | — | V | $I_E = 10 \mu A, I_C = 0$ |
| Collector cutoff current | I_{CBO} | — | — | 0.5 | μA | $V_{CB} = 30 \text{ V}, I_E = 0$ |
| Emitter cutoff current | I_{EBO} | — | — | 0.5 | μA | $V_{EB} = 2 \text{ V}, I_C = 0$ |
| DC current transfer ratio | h_{FE}^{*1} | 250 | — | 1200 | | $V_{CE} = 12 \text{ V}, I_C = 2 \text{ mA}$ |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | — | — | 0.5 | V | $I_C = 10 \text{ mA}, I_B = 1 \text{ mA}$ |
| Base to emitter voltage | V_{BE} | — | — | 0.75 | V | $V_{CE} = 12 \text{ V}, I_C = 2 \text{ mA}$ |

Note: 1. The 2SC2463 is grouped by h_{FE} as follows.

| Grade | D | E | F |
|----------|------------|------------|-------------|
| Mark | DD | DE | DF |
| h_{FE} | 250 to 500 | 400 to 800 | 600 to 1200 |

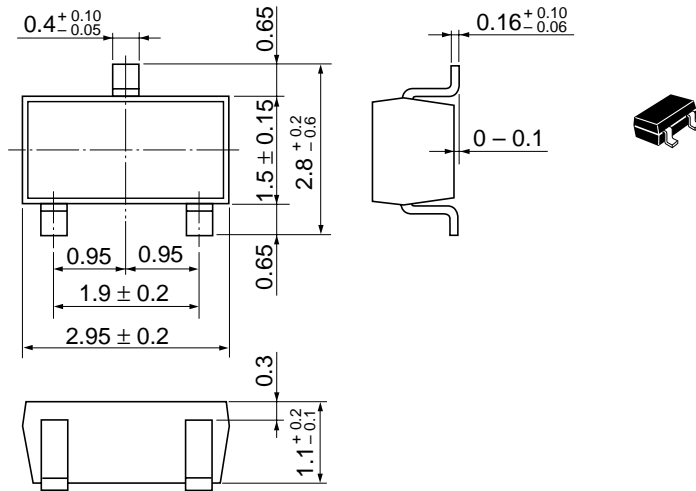
See characteristic curves of 2SC1345.



Package Dimensions

As of January, 2001

Unit: mm



| | |
|------------------------|----------|
| Hitachi Code | MPAK |
| JEDEC | — |
| EIAJ | Conforms |
| Mass (reference value) | 0.011 g |

Cautions

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