

To all our customers

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

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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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# 2SD467

Silicon NPN Epitaxial

**RENESAS**

ADE-208-1134 (Z)

1st. Edition

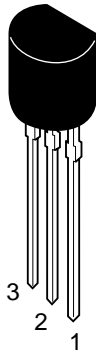
Mar. 2001

## Application

- Low frequency power amplifier
- Complementary pair with 2SB561

## Outline

TO-92 (1)



1. Emitter
2. Collector
3. Base

## Absolute Maximum Ratings (Ta = 25°C)

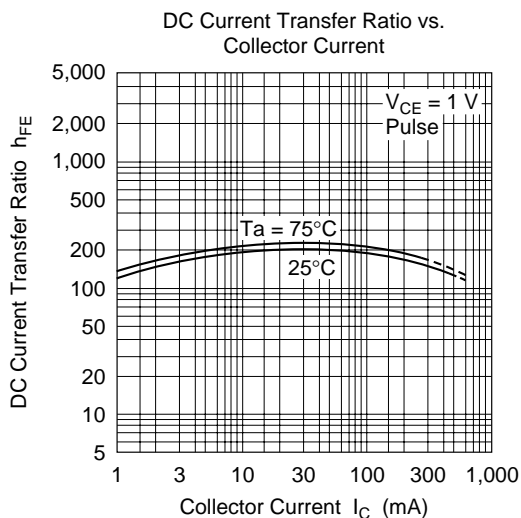
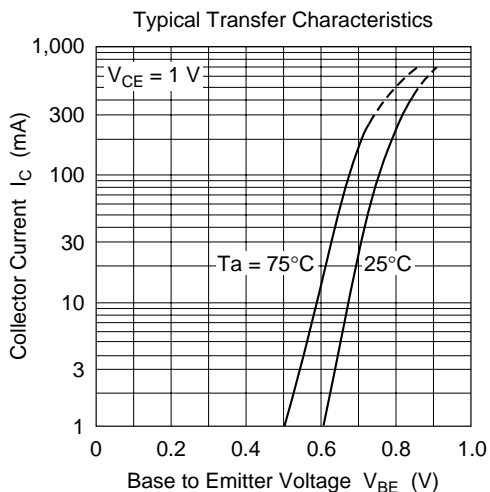
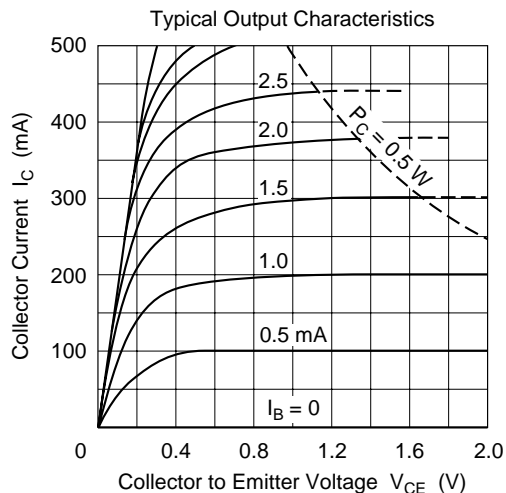
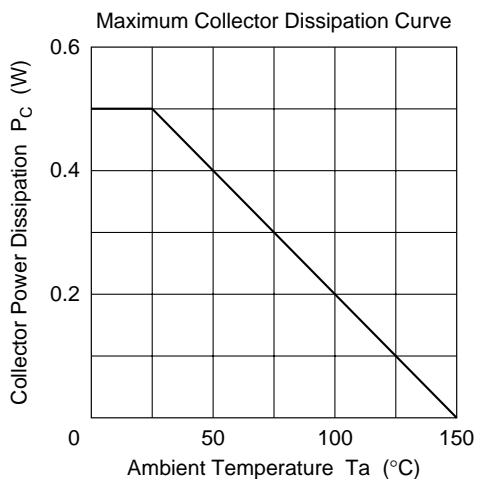
Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	25	V
Collector to emitter voltage	$V_{CEO}$	20	V
Emitter to base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	0.7	A
Collector peak current	$i_{C(peak)}$	1.0	A
Collector power dissipation	$P_C$	0.5	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

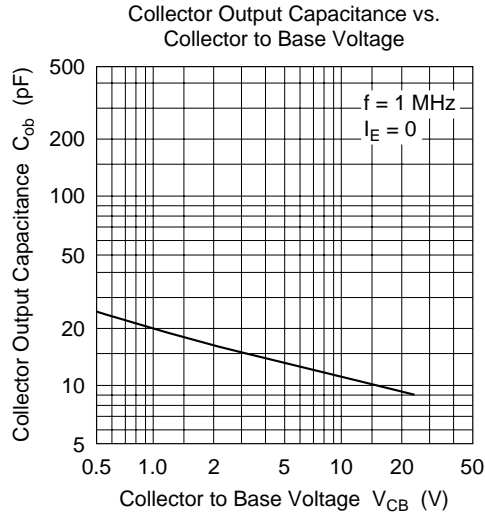
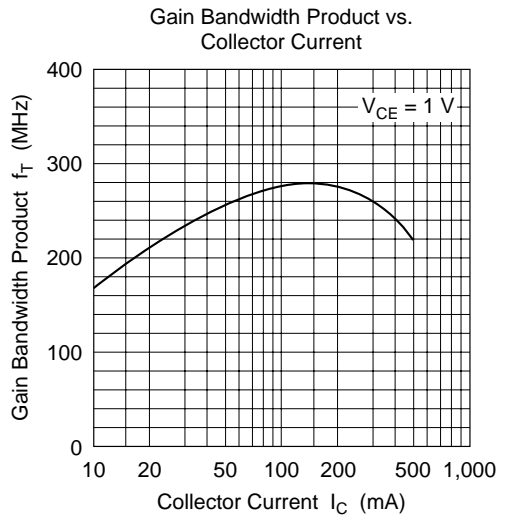
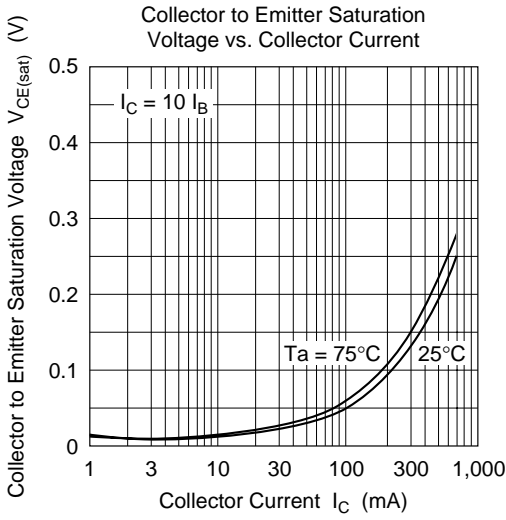
## Electrical Characteristics (Ta = 25°C)

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	$\mu A$	$V_{CB} = 20 \text{ V}, I_E = 0$
DC current transfer ratio	$h_{FE}^{*1}$	85	—	240		$V_{CE} = 1 \text{ V}, I_C = 0.15 \text{ A}$ (Pulse test)
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	0.19	0.5	V	$I_C = 0.5 \text{ A}, I_B = 0.05 \text{ A}$ (Pulse test)
Base to emitter voltage	$V_{BE}$	—	0.76	1.0	V	$V_{CE} = 1 \text{ V}, I_C = 0.15 \text{ A}$ (Pulse test)
Gain bandwidth product	$f_T$	—	280	—	MHz	$V_{CE} = 1 \text{ V}, I_C = 0.15 \text{ A}$ (Pulse test)
Collector output capacitance	$C_{ob}$	—	12	—	pF	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$

Note: 1. The 2SD467 is grouped by  $h_{FE}$  as follows.

B	C
85 to 170	120 to 240

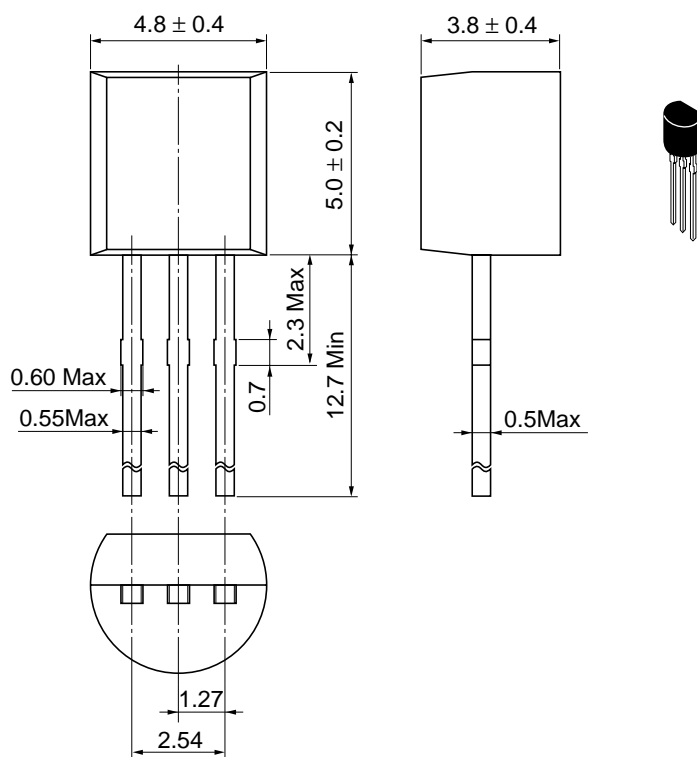




## Package Dimensions

As of January, 2001

Unit: mm



Hitachi Code	TO-92 (1)
JEDEC	Conforms
EIAJ	Conforms
Mass (reference value)	0.25 g

## Cautions

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