

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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# 2SD2651

Silicon NPN Epitaxial  
High Voltage Amplifier

**RENESAS**

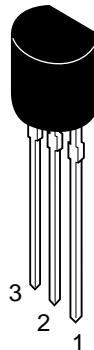
ADE-208-976(Z)  
1st. Edition  
October 2000

## Features

- High breakdown voltage  
 $V_{CEO} = -300V$  min

## Outline

TO-92 (1)



1. Emitter
2. Collector
3. Base

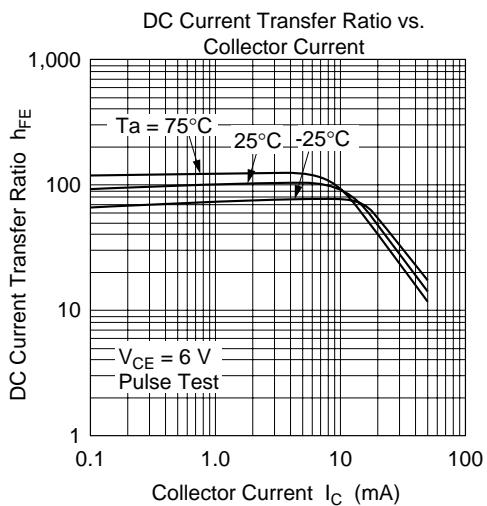
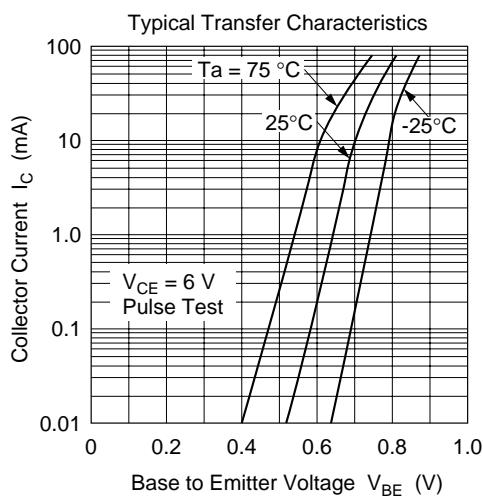
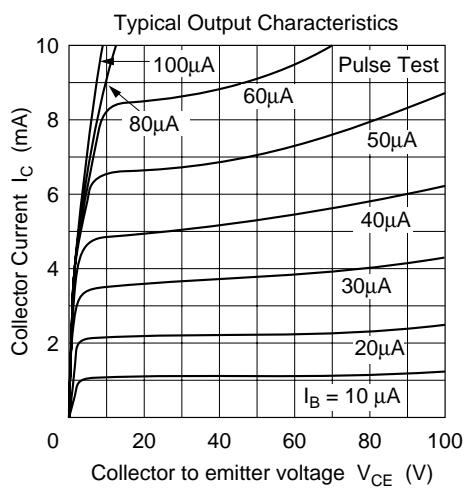
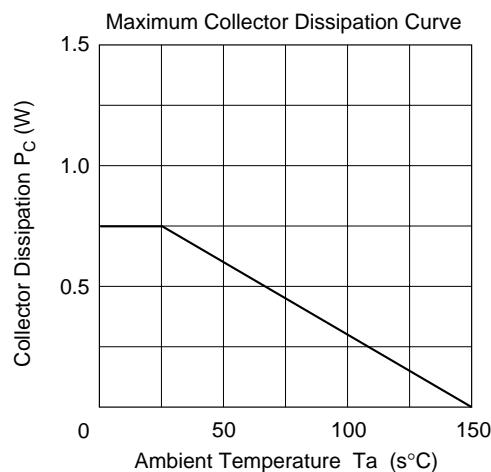
**Absolute Maximum Ratings (Ta = 25°C)**

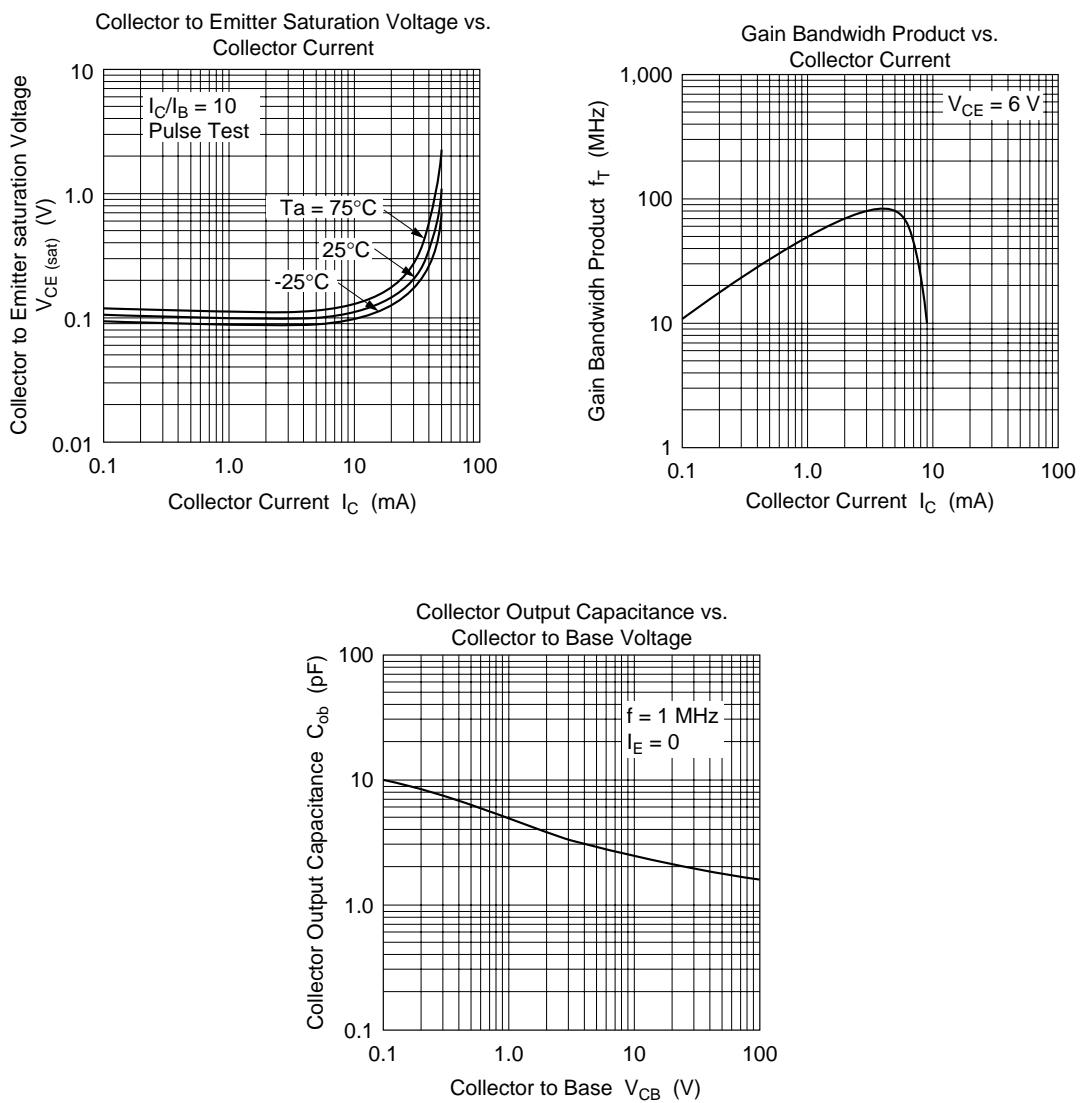
Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	300	V
Collector to emitter voltage	$V_{CEO}$	300	V
Emitter to base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	50	mA
Collector power dissipation	$P_C$	750	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

**Electrical Characteristics (Ta = 25°C)**

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector cutoff current	$I_{CBO}$	—	—	0.1	μA	$V_{CB} = 300V, I_E = 0$
	$I_{CEO}$	—	—	0.1	μA	$V_{CB} = 300V, R_{BE} = \infty$
Emitter cutoff current	$I_{EBO}$	—	—	10	μA	$V_{EB} = 5 V, I_C = 0$
Base to emitter voltage	$V_{BE}$	—	—	0.75	V	$V_{CE} = 6V, I_C = 1mA$
DC current transfer ratio	$h_{FE}$	80	—	160	—	$V_{CE} = 6V, I_C = 2mA$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.5	V	$I_C = 30mA, I_B = 3mA$

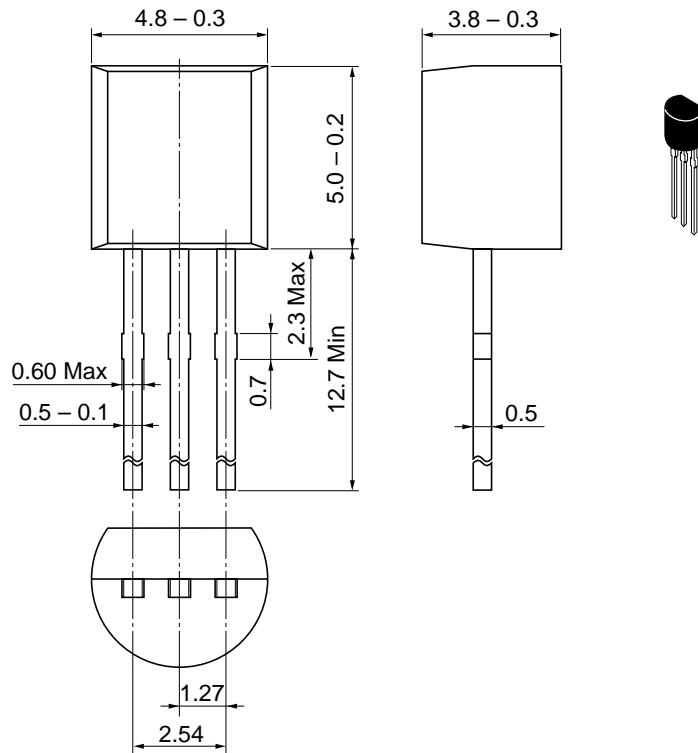
## Main Characteristics





## Package Dimensions

Unit: mm



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

## Cautions

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