

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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# 2SD2651

Silicon NPN Epitaxial  
High Voltage Amplifier

**RENESAS**

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

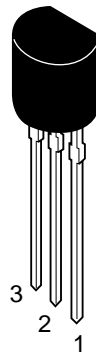
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## Features

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

## Outline

TO-92 (1)



1. Emitter  
2. Collector  
3. Base

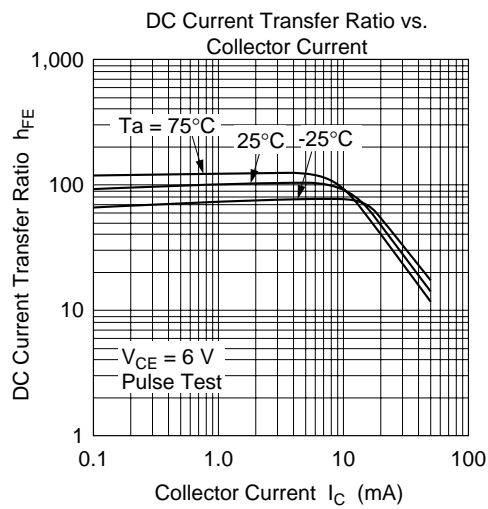
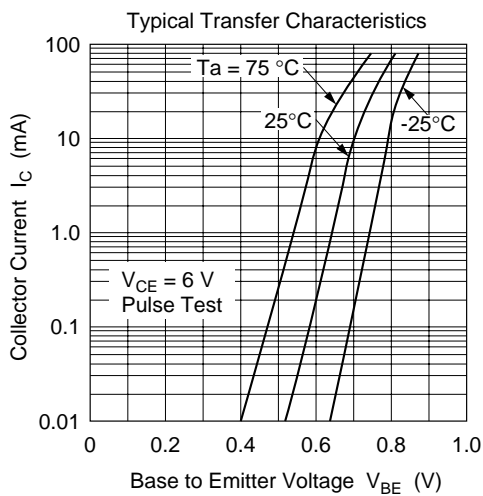
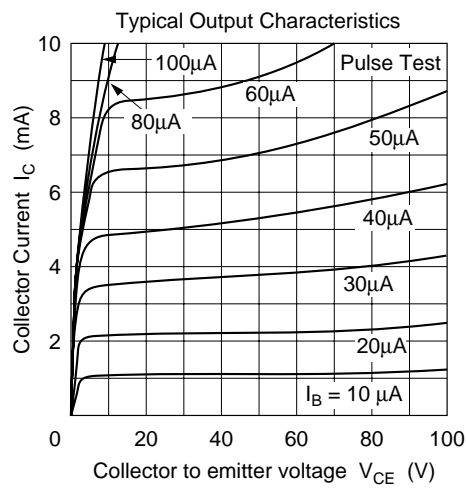
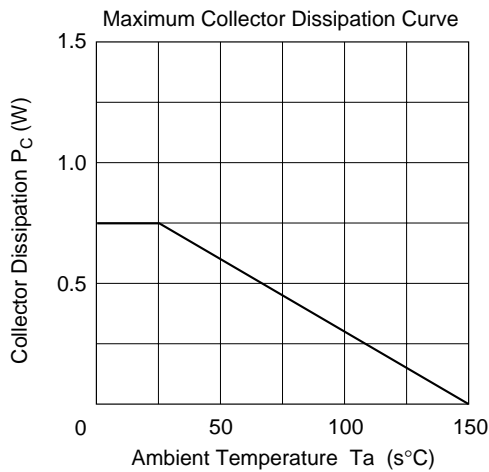
Absolute Maximum Ratings (Ta = 25°C)

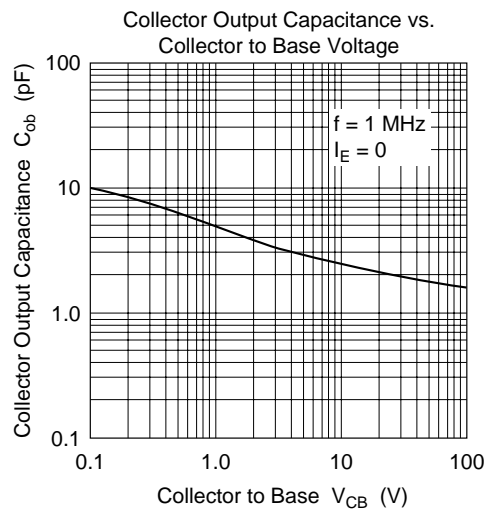
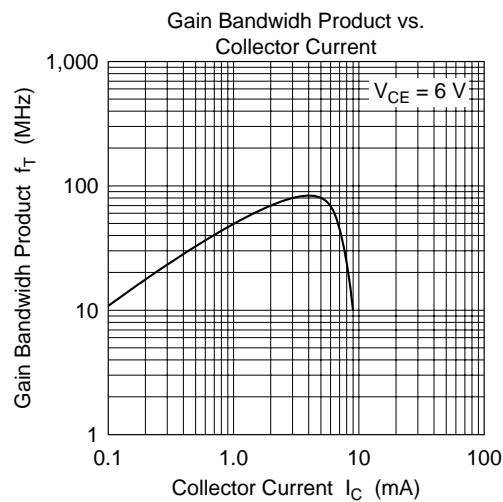
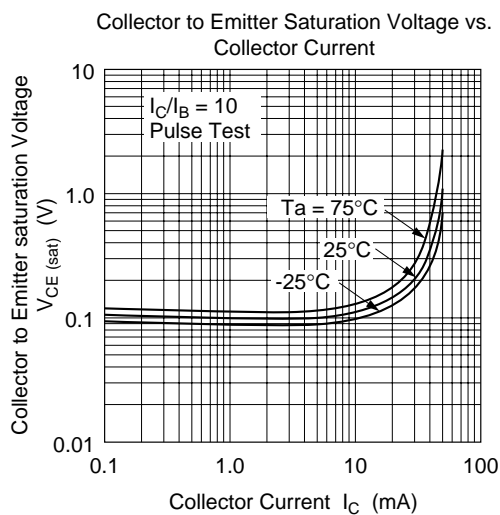
Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	300	V
Collector to emitter voltage	$V_{CEO}$	300	V
Emitter to base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	50	mA
Collector power dissipation	$P_C$	750	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

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	$V_{EB} = 5V, I_C = 0$
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	$I_C = 30mA, I_B = 3mA$

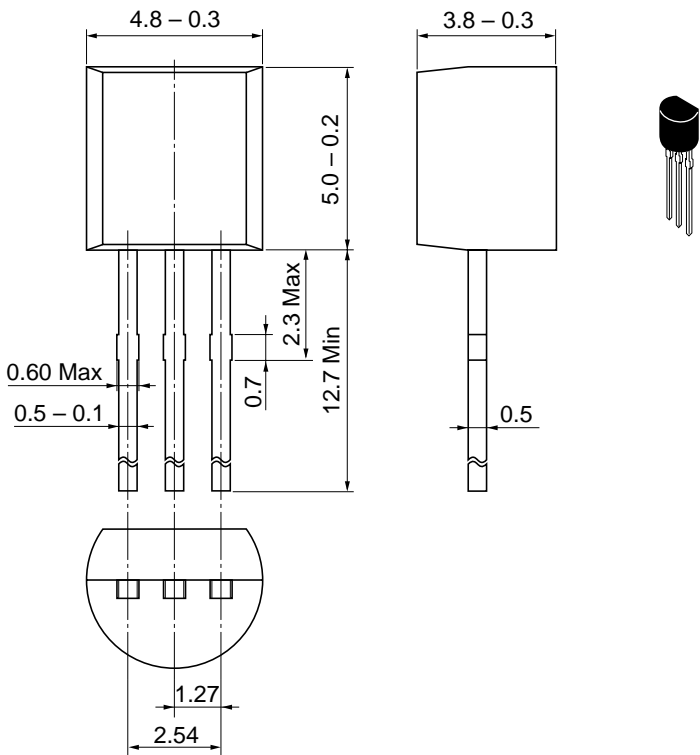
Main Characteristics





Package Dimensions

Unit: mm



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

## Cautions

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# HITACHI

## Hitachi, Ltd.

Semiconductor & Integrated Circuits.

Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan

Tel: Tokyo (03) 3270-2111 Fax: (03) 3270-5109

URL	NorthAmerica	:	<a href="http://semiconductor.hitachi.com/">http://semiconductor.hitachi.com/</a>
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## For further information write to:

Hitachi Semiconductor  
(America) Inc.  
179 East Tasman Drive,  
San Jose, CA 95134  
Tel: <1> (408) 433-1990  
Fax: <1> (408) 433-0223

Hitachi Europe GmbH  
Electronic Components Group  
Dornacher StraÙe 3  
D-85622 Feldkirchen, Munich  
Germany  
Tel: <49> (89) 9 9180-0  
Fax: <49> (89) 9 29 30 00

Hitachi Europe Ltd.  
Electronic Components Group.  
Whitebrook Park  
Lower Cookham Road  
Maidenhead  
Berkshire SL6 8YA, United Kingdom  
Tel: <44> (1628) 585000  
Fax: <44> (1628) 585160

Hitachi Asia Ltd.  
16 Collyer Quay #20-00  
Hitachi Tower  
Singapore 049318  
Tel: 535-2100  
Fax: 535-1533

Hitachi Asia Ltd.  
Taipei Branch Office  
3rd Flr, Hung Kuo Building, No.167,  
Tun Hwa North Road, Taipei (105)  
Taiwan  
Tel: <886> (2) 2718-3666  
Fax: <886> (2) 2718-8180  
Telex: 23222 HAS-TP

Hitachi Asia (Hong Kong) Ltd.  
Group III (Electronic Components)  
7th Flr, North Tower, World Finance Centre,  
Harbour City, Canton Road, Tsim Sha Tsui,  
Kowloon, Hong Kong  
Tel: <852> (2) 735 9218  
Fax: <852> (2) 730 0281  
Telex: 40815 HITEC HX

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