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# 2SA1082

Silicon PNP Epitaxial

# HITACHI

ADE-208-1003A (Z)  
2nd. Edition  
Mar. 2001

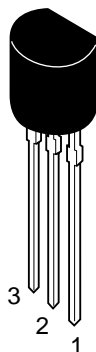
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## Application

- Low frequency amplifier

## Outline

TO-92 (1)



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	2SA1082	Unit
Collector to base voltage	V <sub>CBO</sub>	−120	V
Collector to emitter voltage	V <sub>CEO</sub>	−120	V
Emitter to base voltage	V <sub>EBO</sub>	−5	V
Collector current	I <sub>C</sub>	−100	mA
Emitter current	I <sub>E</sub>	100	mA
Collector power dissipation	P <sub>C</sub>	400	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	−55 to +150	°C

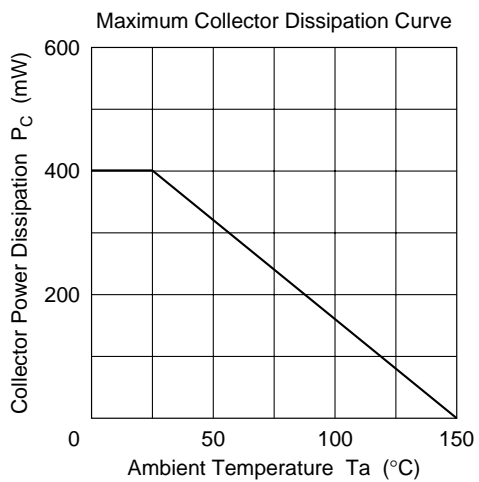
Electrical Characteristics (Ta = 25°C)

2SA1082						
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	V <sub>(BR)CBO</sub>	−120	—	—	V	I <sub>C</sub> = −10 μA, I <sub>E</sub> = 0
Collector to emitter breakdown voltage	V <sub>(BR)CEO</sub>	−120	—	—	V	I <sub>C</sub> = −1 mA, R <sub>BE</sub> = ∞
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	−5	—	—	μA	I <sub>E</sub> = −10 μA, I <sub>C</sub> = 0
Collector cutoff current	I <sub>CBO</sub>	—	—	−0.1	μA	V <sub>CB</sub> = −50 V, I <sub>E</sub> = 0
Emitter cutoff current	I <sub>EBO</sub>	—	—	−0.1		V <sub>EB</sub> = −2 V, I <sub>C</sub> = 0
DC current transfer ratio	h <sub>FE</sub> <sup>*1</sup>	250	—	800		V <sub>CE</sub> = −12 V, I <sub>C</sub> = −2 mA
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	—	—	−0.2	V	I <sub>C</sub> = −10 mA, I <sub>B</sub> = −1 mA
Base to emitter voltage	V <sub>BE</sub>	—	−0.6	—	V	V <sub>CE</sub> = −12 V, I <sub>C</sub> = −2 mA
Gain bandwidth product	f <sub>T</sub>	—	90	—	MHz	V <sub>CE</sub> = −12 V, I <sub>C</sub> = −2 mA
Collector output capacitance	C <sub>ob</sub>	—	3.5	—	pF	V <sub>CB</sub> = −10 V, I <sub>E</sub> = 0, f = 1 MHz

Note: 1. The 2SA1082 is grouped by h<sub>FE</sub> as follows.

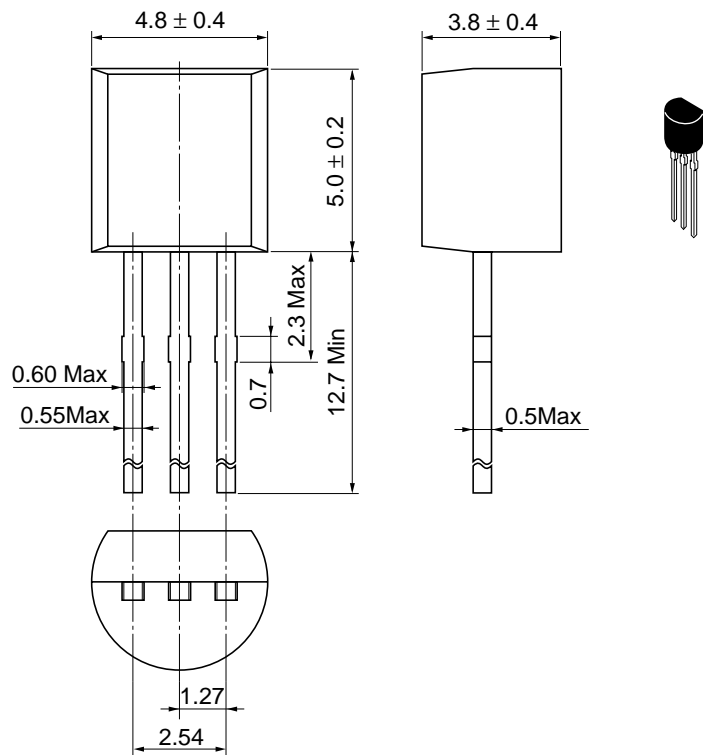
D	E
250 to 500	400 to 800

See characteristic curves of 2SA1084.



Package Dimensions

As of January, 2001  
Unit: mm



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

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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 Straße 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.  
Hitachi Tower  
16 Collyer Quay #20-00,  
Singapore 049318  
Tel: <65>-538-6533/538-8577  
Fax: <65>-538-6933/538-3877  
URL: <http://www.hitachi.com.sg>

Hitachi Asia Ltd.  
(Taipei Branch Office)  
4/F, No. 167, Tun Hwa North Road,  
Hung-Kuo Building,  
Taipei (105), Taiwan  
Tel: <886>-(2)-2718-3666  
Fax: <886>-(2)-2718-8180  
Telex: 23222 HAS-TP  
URL: <http://www.hitachi.com.tw>

Hitachi Asia (Hong Kong) Ltd.  
Group III (Electronic Components)  
7/F., 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  
URL: <http://www.hitachi.com.hk>

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