
2SA1025, 2SA1081, 2SA1082

Silicon PNP Epitaxial

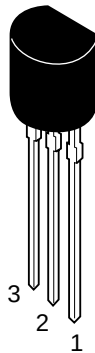
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Application

- Low frequency amplifier
- Complementary pair with 2SC2396, 2SC2543 and 2SC2544

Outline

TO-92 (1)



1. Emitter
2. Collector
3. Base

2SA1025, 2SA1081, 2SA1082

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	2SA1025	2SA1081	2SA1082	Unit
Collector to base voltage	V _{CBO}	−60	−90	−120	V
Collector to emitter voltage	V _{CEO}	−60	−90	−120	V
Emitter to base voltage	V _{EBO}	−5	−5	−5	V
Collector current	I _C	−100	−100	−100	mA
Emitter current	I _E	100	100	100	mA
Collector power dissipation	P _C	400	400	400	mW
Junction temperature	T _j	150	150	150	°C
Storage temperature	T _{stg}	−55 to +150	−55 to +150	−55 to +150	°C

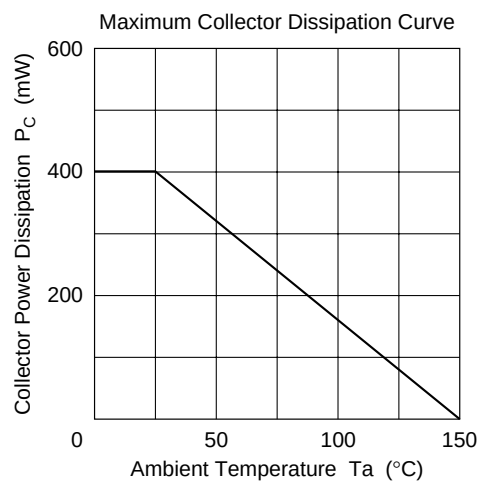
Electrical Characteristics (Ta = 25°C)

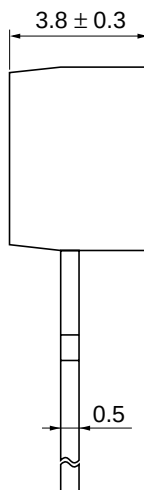
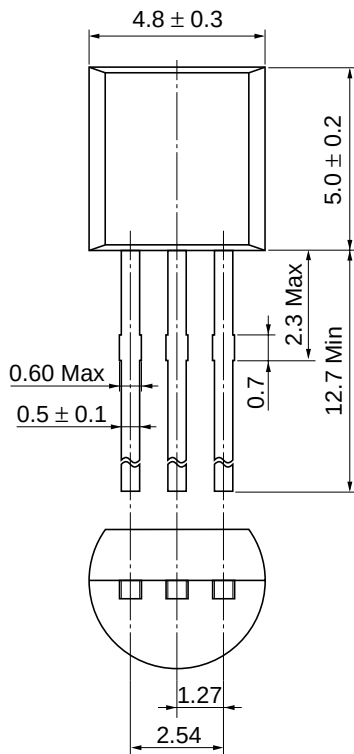
Item	Symbol	2SA1025			2SA1081			2SA1082			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max		
Collector to base breakdown voltage	V _{(BR)CBO}	−60	—	—	−90	—	—	−120	—	—	V	I _C = −10 μA, I _E = 0
Collector to emitter breakdown voltage	V _{(BR)CEO}	−60	—	—	−90	—	—	−120	—	—	V	I _C = −1 mA, R _{BE} = ∞
Emitter to base breakdown voltage	V _{(BR)EBO}	−5	—	—	−5	—	—	−5	—	—	μA	I _E = −10 μA, I _C = 0
Collector cutoff current	I _{CBO}	—	—	−0.1	—	—	−0.1	—	—	−0.1	μA	V _{CB} = −50 V, I _E = 0
Emitter cutoff current	I _{EBO}	—	—	−0.1	—	—	−0.1	—	—	−0.1		V _{EB} = −2 V, I _C = 0
DC current transfer ratio	h _{FE} ^{*1}	250	—	800	250	—	800	250	—	800		V _{CE} = −12 V, I _C = −2 mA
Collector to emitter saturation voltage	V _{CE(sat)}	—	—	−0.2	—	—	−0.2	—	—	−0.2	V	I _C = −10 mA, I _B = −1 mA
Base to emitter voltage	V _{BE}	—	−0.6	—	—	−0.6	—	—	−0.6	—	V	V _{CE} = −12 V, I _C = −2 mA
Gain bandwidth product	f _T	—	90	—	—	90	—	—	90	—	MHz	V _{CE} = −12 V, I _C = −2 mA
Collector output capacitance	Cob	—	3.5	—	—	3.5	—	—	3.5	—	pF	V _{CB} = −10 V, I _E = 0, f = 1 MHz

Note: 1. The 2SA1025, 2SA1081 and 2SA1082 are grouped by h_{FE} as follows.

D	E
250 to 500	400 to 800

See characteristic curves of 2SA1083.





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

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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

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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) 778322
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Hitachi Asia Pte. Ltd. 16 Collyer Quay #20-00 Hitachi Tower Singapore 049318 Tel: 535-2100 Fax: 535-1533 Hitachi Asia Ltd. Taipei Branch Office 3F, Hung Kuo Building. No.167, Tun-Hwa North Road, Taipei (105) Tel: <886> (2) 2718-3666 Fax: <886> (2) 2718-8180
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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
Telex: 40815 HITEC HX

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