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!

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   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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2SB1026

Silicon PNP Epitaxial

RENESAS

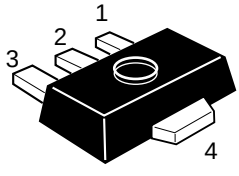
ADE-208-1037 (Z)
1st. Edition
Mar. 2001

Application

- Low frequency power amplifier
- Complementary pair with 2SD1419

Outline

UPAK



1. Base
2. Collector
3. Emitter
4. Collector (Flange)

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	–120	V
Collector to emitter voltage	V_{CEO}	–100	V
Emitter to base voltage	V_{EBO}	–5	V
Collector current	I_C	–1	A
Collector peak current	$i_{C(peak)}$*1	–2	A
Collector power dissipation	P_C*2	1	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Notes: 1. PW ≤ 10 ms, Duty cycle ≤ 20%
2. Value on the alumina ceramic board (12.5 × 20 × 0.7 mm)

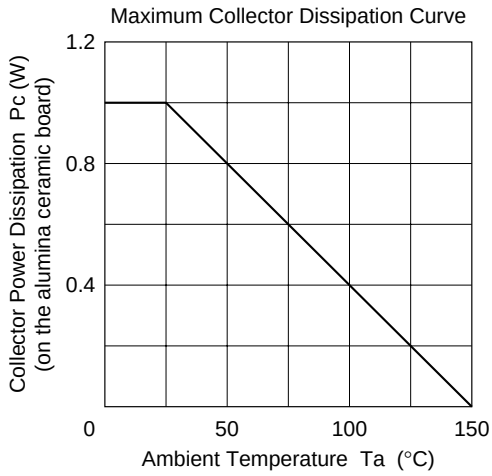
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	–120	—	—	V	I_C = –10 µA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	–100	—	—	V	I_C = –1 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	–5	—	—	V	I_E = –10 µA, I_C = 0
Collector cutoff current	I_{CBO}	—	—	–10	µA	V_{CB} = –100 V, I_E = 0
DC current transfer ratio	h_{FE1}*1	60	—	200		V_{CE} = –5 V, I_C = –150 mA
	h_{FE2}	30	—	—		V_{CE} = –5 V, I_C = –500 mA (Pulse test)
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	–1	V	I_C = –500 mA, I_B = –50 mA (Pulse test)
Base to emitter voltage	V_{BE}	—	—	–0.9	V	V_{CE} = –5 V, I_C = –150 mA
Gain bandwidth product	f_T	—	140	—	MHz	V_{CE} = –5 V, I_C = –150 mA
Collector output capacitance	Cob	—	20	—	pF	V_{CB} = –10 V, I_E = 0, f = 1 MHz

Note: 1. The 2SB1026 is grouped by h_{FE1} as follows.

Mark	DL	DM
h_{FE1}	60 to 120	100 to 200

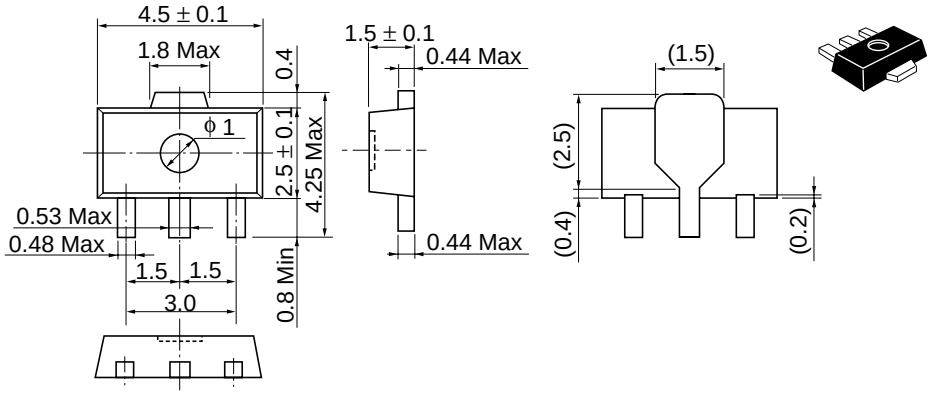
See characteristic curves of 2SB1025.


Maximum Collector Dissipation Curve
Collector Power Dissipation Pc (W)
(on the alumina ceramic board)
1.2
0.8
0.4
0
50
100
150
Ambient Temperature Ta (°C)

Package Dimensions

As of January, 2001

Unit: mm



Hitachi Code	UPAK
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.050 g

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