2SB1026

Silicon PNP Epitaxial

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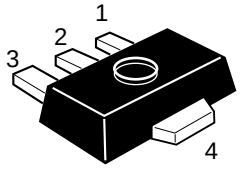
Application

- Low frequency power amplifier
- Complementary pair with 2SD1419

Outline

UPAK



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

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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)

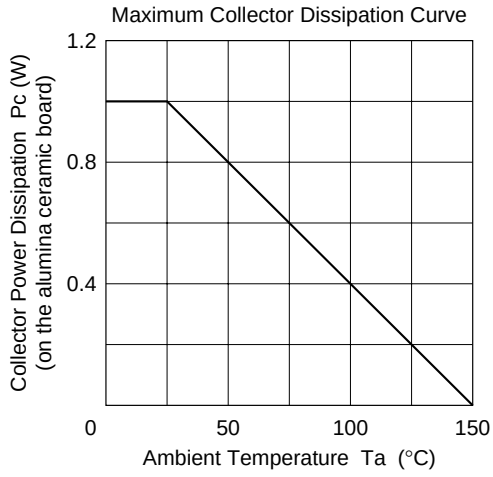
Electrical Characteristics (Ta = 25°C)

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

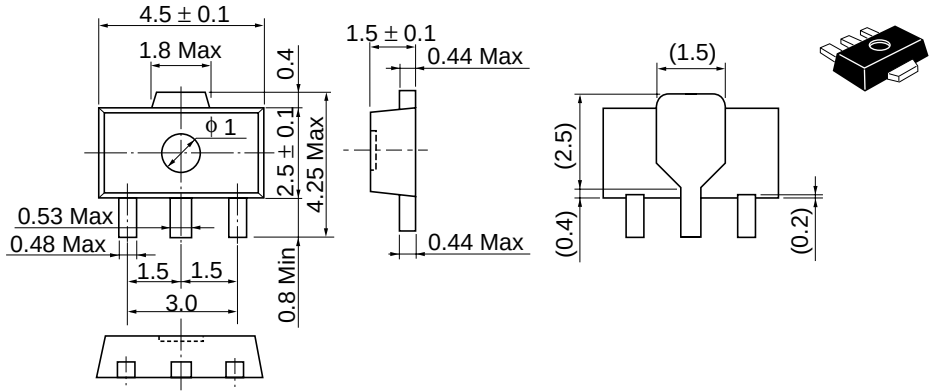
Note: 1. The 2SB1026 is grouped by h_{FE1} as follows.

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)

Unit: mm



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

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