
2SB831

Silicon PNP Epitaxial

HITACHI

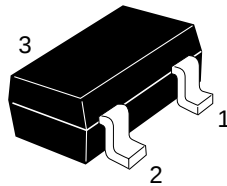
ADE-208-1033 (Z)
1st. Edition
Mar. 2001

Application

- Low frequency amplifier
- Complementary pair with 2SD1101

Outline

MPAK



- 1. Emitter
- 2. Base
- 3. Collector

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-25	V
Collector to emitter voltage	V_{CEO}	-20	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_C	-0.7	A
Collector peak current	$i_{C(peak)}$	-1	A
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

Electrical Characteristics (Ta = 25°C)

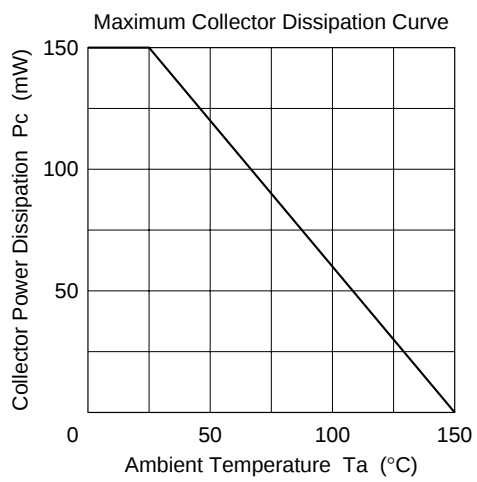
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-25	—	—	V	$I_C = -10\text{ }\mu\text{A}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-20	—	—	V	$I_C = -1\text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-5	—	—	V	$I_E = -10\text{ }\mu\text{A}$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	-1.0	μA	$V_{CB} = -20\text{ V}$, $I_E = 0$
DC current transfer ratio	h_{FE}^{*1}	85	—	240		$V_{CE} = -1\text{ V}$, $I_C = -0.15\text{ A}^{*2}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-0.5	V	$I_C = -0.5\text{ A}$, $I_B = -0.05\text{ A}^{*2}$
Base to emitter voltage	V_{BE}	—	—	-1.0	V	$V_{CE} = -1\text{ V}$, $I_C = -0.15\text{ A}^{*2}$

Notes: 1. The 2SB831 is grouped by h_{FE} as follows.

2. Pulse test

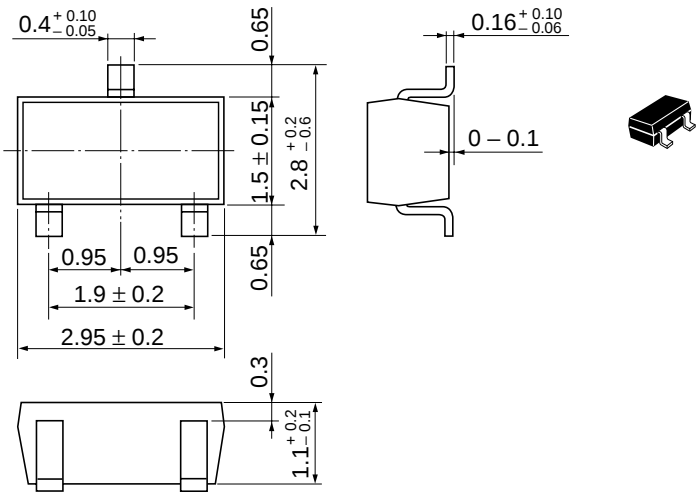
Grade	B	C
Mark	BB	BC
h_{FE}	85 to 170	120 to 240

See characteristic curves of 2SB561.



Package Dimensions

As of January, 2001
Unit: mm



Hitachi Code	MPAK
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.011 g

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