2SB831

Silicon PNP Epitaxial

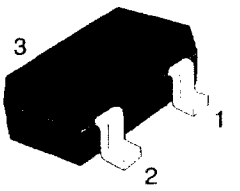
HITACHI

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	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

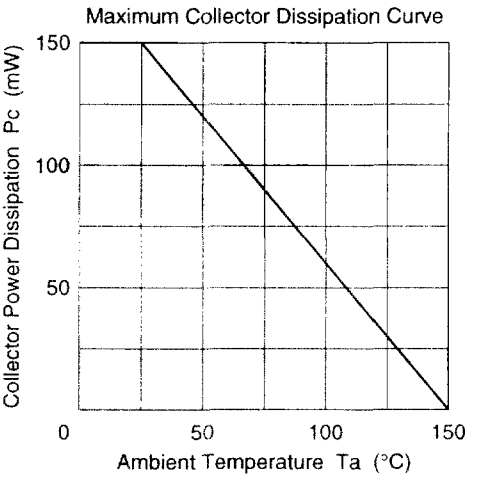
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	–25	—	—	V	I_C = –10 µA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	–20	—	—	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}	—	—	–1.0	µA	V_{CB} = –20 V, I_E = 0
DC current transfer ratio	h_{FE}*1	85	—	240		V_{CE} = –1 V, I_C = –0.15 A*2
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	–0.5	V	I_C = –0.5 A, I_B = –0.05 A*2
Base to emitter voltage	V_{BE}	—	—	–1.0	V	V_{CE} = –1 V, I_C = –0.15 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.


Maximum Collector Dissipation Curve
Collector Power Dissipation Pc (mW)
150
100
50
0
50
100
150
Ambient Temperature Ta (°C)