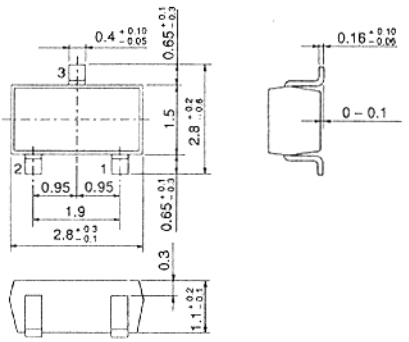
HITACHI

2SB831

SILICON PNP EPITAXIAL

LOW FREQUENCY AMPLIFIER
Complementary pair with 2SD1101



1. Emitter
2. Base
3. Collector

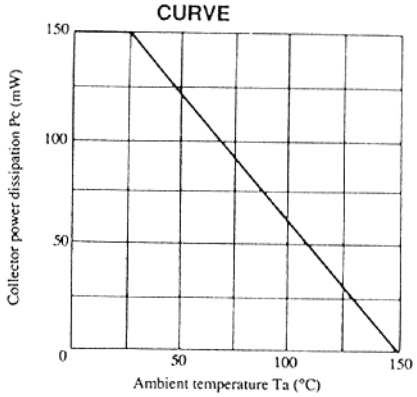
(Dimensions in mm)

(MPAK)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SB831	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

MAXIMUM COLLECTOR DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	$V_{(BR)CBO}$	I_C = –10μA, I_E = 0	–25	—	—	V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	I_C = –1mA, R_{BE} = ∞	–20	—	—	V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	I_E = –10μA, I_C = 0	–5	—	—	V
Collector cutoff current	I_{CBO}	V_{CB} = –20V, I_E = 0	—	—	–1.0	μA
DC current transfer ratio	h_{FE}*	V_{CE} = –1V, I_C = –0.15A**	85	—	240	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = –0.5A, I_B = –0.05A**	—	—	–0.5	V
Base to emitter voltage	V_{BE}	V_{CE} = –1V, I_C = –0.15A**	—	—	–1.0	V

* The 2SB831 is grouped by h_{FE} as follows.

** Pulse Test

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

■ See characteristic curves of 2SB561.