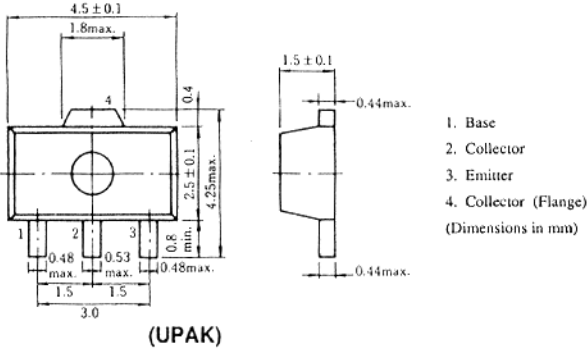


## 2SB1000

SILICON PNP EPITAXIAL

LOW FREQUENCY POWER AMPLIFIER

Complementary pair with 2SD1366



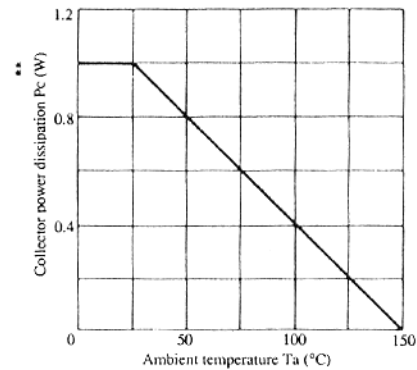
### ■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SB1000	Unit
Collector to base voltage	V <sub>CB0</sub>	-25	V
Collector to emitter voltage	V <sub>CE0</sub>	-20	V
Emitter to base voltage	V <sub>EB0</sub>	-5	V
Collector current	I <sub>C</sub>	-1	A
Collector peak current	i <sub>C(peak)*</sub>	-1.5	A
Collector power dissipation	P <sub>C**</sub>	1	W
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

\* PW ≤ 10ms, Duty cycle ≤ 20%

\*\* Value on the alumina ceramic board (12.5 × 20 × 0.7mm)

### MAXIMUM COLLECTOR DISSIPATION CURVE



### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -10μA, I <sub>E</sub> = 0	-25	—	—	V
Collector to emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1mA, R <sub>BE</sub> = ∞	-20	—	—	V
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10μA, I <sub>C</sub> = 0	-5	—	—	V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = -20V, I <sub>E</sub> = 0	—	—	-0.1	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = -4V, I <sub>C</sub> = 0	—	—	-0.1	μA
DC current transfer ratio	h <sub>FE</sub> *	V <sub>CE</sub> = -2V, I <sub>C</sub> = -0.5A, (Pulse test)	85	—	240	
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -0.8A, I <sub>B</sub> = -0.08A, (Pulse test)	—	-0.2	-0.3	V
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -0.8A, I <sub>B</sub> = -0.08A, (Pulse test)	—	-0.94	-1.1	V
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = -2V, I <sub>C</sub> = -0.5A, (Pulse test)	—	200	—	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz	—	38	—	pF

\* The 2SB1000 is grouped by h<sub>FE</sub> as follows.

Mark	AH	AJ
h <sub>FE</sub>	85 to 170	120 to 240

■ See characteristic curves of 2SB562.