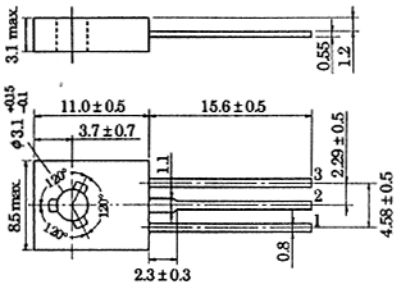
HITACHI

2SB874

SILICON PNP EPITAXIAL

LOW PREQUENCY POWER AMPLIFIER
COMPLEMENTARY PAIR WITH 2SD1177



1. Emitter
2. Collector
3. Base

(Dimensions in mm)

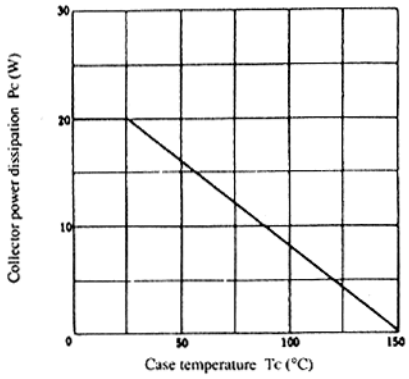
(JEDEC TO-126 MOD.)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SB874	Unit
Collector to base voltage	V_{CBO}	−100	V
Collector to emitter voltage	V_{CEO}	−60	V
Emitter to base voltage	V_{EBO}	−5	V
Collector current	I_C	−2	A
Collector peak current	$i_{C(peak)}$	−3	A
Collector power dissipation	P_C*	20	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

* Value at T_C=25°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 = −1mA, I_E = 0	−100	—	—	V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	I_C = −10mA, R_{BE} = ∞	−60	—	—	V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	I_E = −1mA, I_C = 0	−5	—	—	V
Collector cutoff current	I_{CBO}	V_{CB} = −80V, I_E = 0	—	—	−1.0	μA
Emitter cutoff current	I_{EBO}	V_{EB} = −5V, I_C = 0	—	—	−1.0	μA
DC current transfer ratio	h_{FE1}*	V_{CE} = −5V, I_C = −0.5A**	60	—	200	
	h_{FE2}	V_{CE} = −5V, I_C = −2A**	40	—	—	
Base to emitter voltage	V_{BE}	V_{CE} = −5V, I_C = −1.5A**	—	—	−1.4	V
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = −1.5A, I_B = −0.15A**	—	−0.6	−1.0	V
Gain bandwidth product	f_T	V_{CE} = −5V, I_C = −0.5A**	—	250	—	MHz
Collector output capacitance	C_{ob}	V_{CB} = −10V, I_E = 0, f = 1MHz	—	50	—	pF

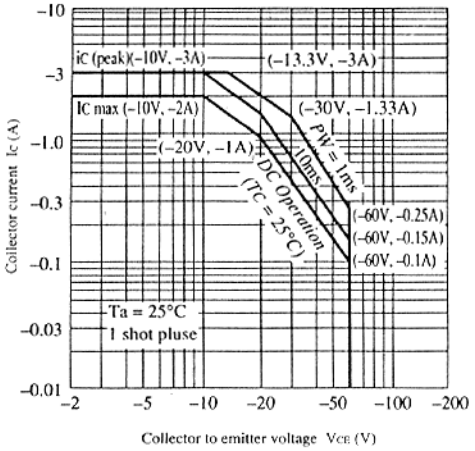
* The 2SB874 is grouped by h_{FE} as follows.

** Pulse Test

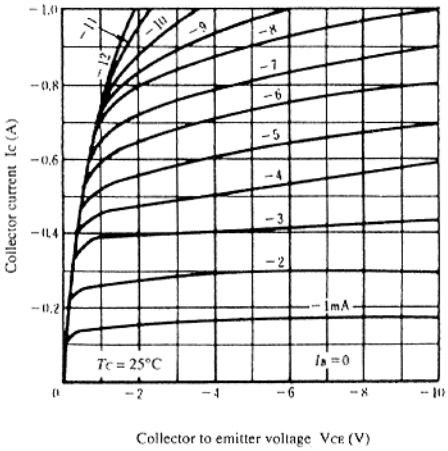
B	C
60 to 120	100 to 200

2SB874

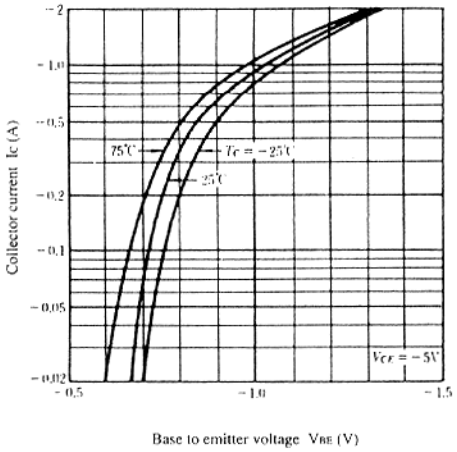
AREA OF SAFE OPERATION



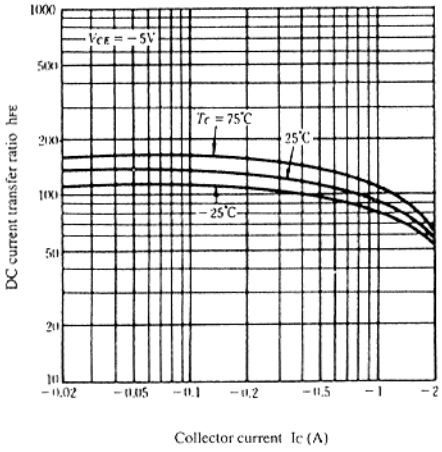
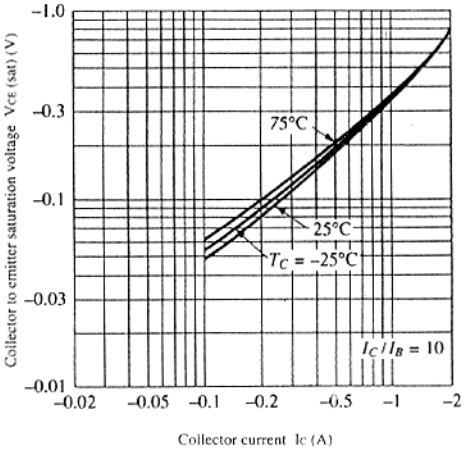
TYPICAL OUTPUT CHARACTERISTICS



TYPICAL TRANSFER CHARACTERISTICS



DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT