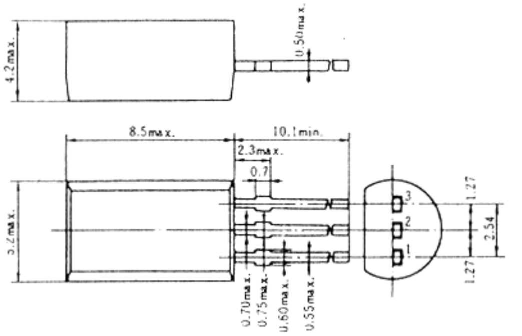
2SB740

SILICON PNP EPITAXIAL

LOW FREQUENCY POWER AMPLIFIER
Complementary pair with 2SD789



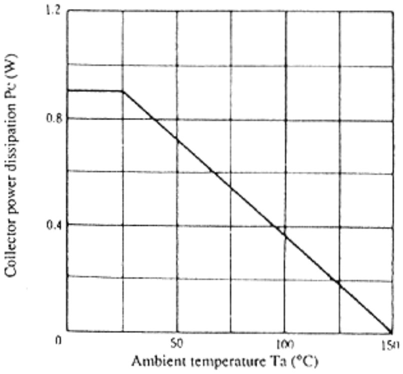
1. Emitter
2. Collector
3. Base
(Dimensions in mm)

(JEDEC TO-92 MOD.)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SB740	Unit
Collector to base voltage	V_{CBO}	–70	V
Collector to emitter voltage	V_{CEO}	–50	V
Emitter to base voltage	V_{EBO}	–6	V
Collector current	I_C	–1	A
Collector power dissipation	P_C	0.9	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	–55 to +150	°C

MAXIMUM COLLECTOR DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

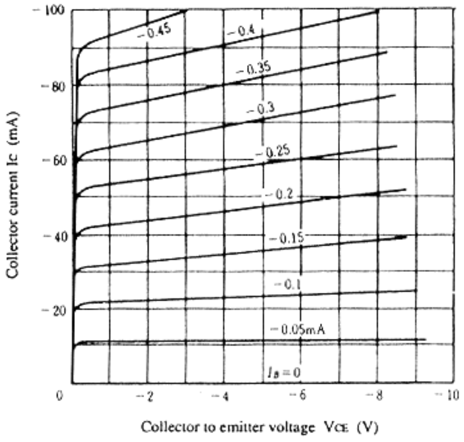
Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A$, $I_E = 0$	–70	—	—	V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA$, $R_{BE} = \infty$	–50	—	—	V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A$, $I_C = 0$	–6	—	—	V
Collector cutoff current	I_{CBO}	$V_{CB} = -55V$, $I_E = 0$	—	—	–1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -6V$, $I_C = 0$	—	—	–0.2	μA
DC current transfer ratio	h_{FE}*	$V_{CE} = -2V$, $I_C = -0.1A$	100	—	320	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1A$, $I_B = -0.1A$	—	—	–0.6	V
Gain bandwidth product	f_T	$V_{CE} = -2V$, $I_C = -10mA$	—	150	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V$, $I_E = 0$, f = 1MHz	—	35	—	pF

* The 2SB740 is grouped by h_{FE} as follows.

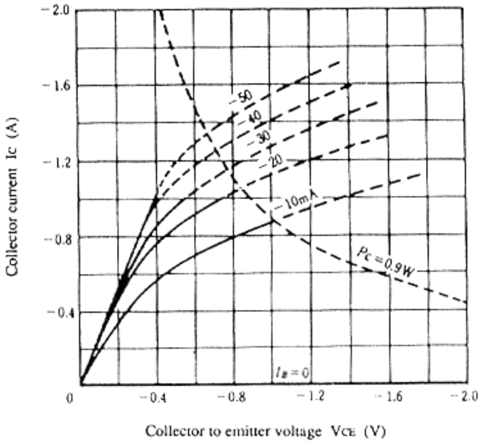
B	C
100 to 200	160 to 320

2SB740

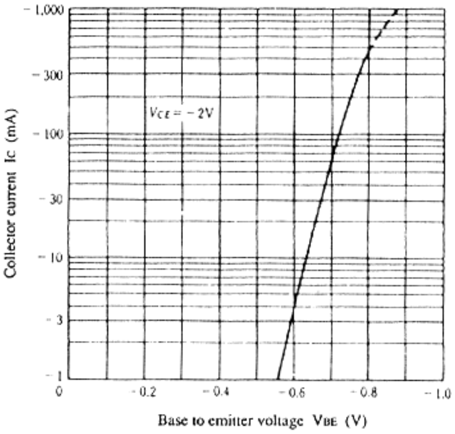
TYPICAL OUTPUT CHARACTERISTICS (1)



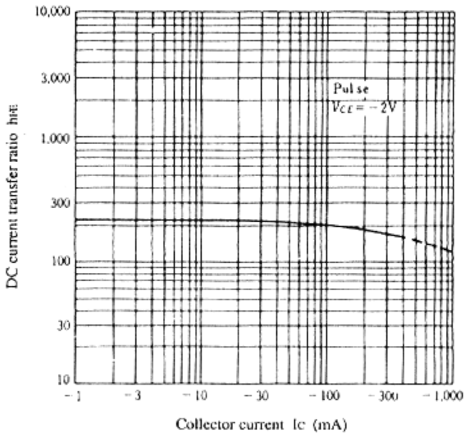
TYPICAL OUTPUT CHARACTERISTICS (2)



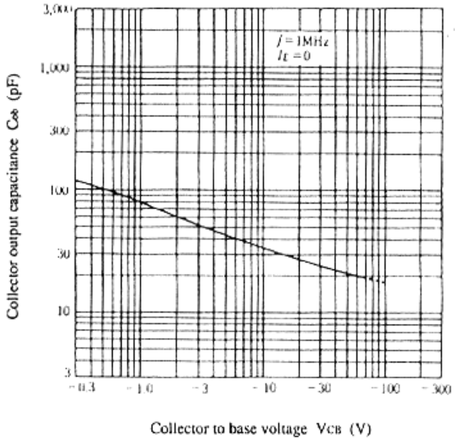
TYPICAL TRANSFER CHARACTERISTICS



DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE



SATURATION VOLTAGE VS. COLLECTOR CURRENT