

SANYO	No.2040A	2SB1122/2SD1622
	PNP/NPN Epitaxial Planar Silicon Transistors	
Low-Frequency Power Amp Applications		

Applications

- . Voltage regulators relay drivers, lamp drivers, electrical equipment

Features

- . Adoption of FBET process
- . Very small size making it easy to provide high-density hybrid ICs.

(): 2SB1122

Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V _{CB0}	(-)60	V
Collector to Emitter Voltage	V _{CEO}	(-)50	V
Emitter to Base Voltage	V _{EBO}	(-)5	V
Collector Current	I _C	(-)1	A
Collector Current(Pulse)	I _{CP}	(-)2	A
Collector Dissipation	P _C	500	mW
Mounted on ceramic board (250mm ² X 0.8mm)			
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics at Ta=25°C

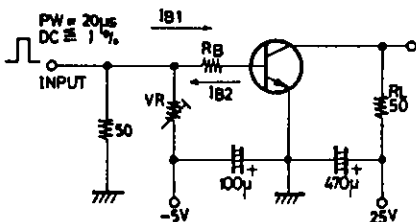
			min	typ	max	unit
Collector Cutoff Current	I _{CBO}	V _{CB} =(-)50V, I _E =0			(-)100	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} =(-)4V, I _C =0			(-)100	nA
DC Current Gain	h _{FE} (1)	V _{CE} =(-)2V, I _C =(-)100mA	100*		560*	
		V _{CE} =(-)2V, I _C =(-)1A	30			
Gain-Bandwidth Product	f _T	V _{CE} =(-)10V, I _C =(-)50mA		150		MHz
		V _{CB} =(-)10V, f=1MHz		(12)		pF
Output Capacitance	c _{ob}			8.5		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C =(-)500mA, I _B =(-)50mA		(-180)	(-500)	mV
				120	300	mV
B-E Saturation Voltage	V _{BE(sat)}	I _C =(-)500mA, I _B =(-)50mA		(-)0.9	(-)1.2	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C =(-)10μA, I _E =0	(-)60			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C =(-)1mA, R _{BE} =∞	(-)50			V
E-B Breakdown Voltage	V _{(BR)EBO}	I _E =(-)10μA, I _C =0	(-)5			V

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*: The 2SB1122/2SD1622 are classified by 100mA h_{FE} as follows:

100	R	200	140	S	280	200	T	400	280	U	560
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Switching Time Test Circuit



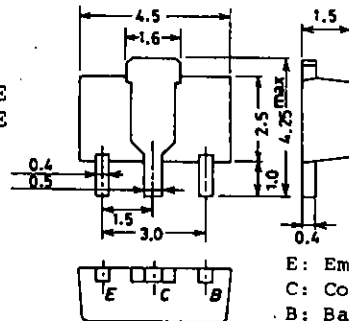
I_C = 10 I_{B1} = -10 I_{B2} = 500mA
(For PNP, the polarity is reversed.)

Unit (Resistance : Ω, Capacitance : F)

Package Dimensions 2038

(unit:mm)

Marking 2SB1122:BE
2SD1622:DE
h_{FE} rank :R,S,T,U



(Bottom View)

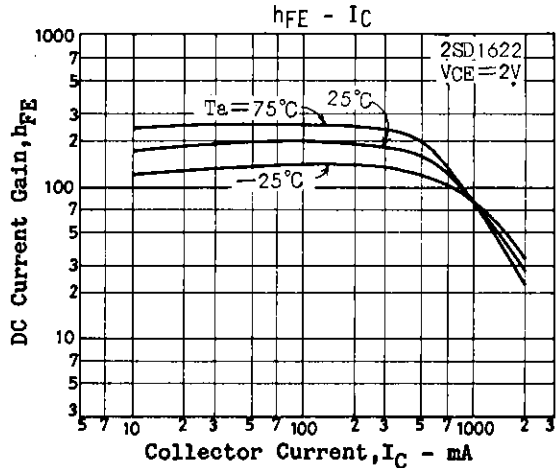
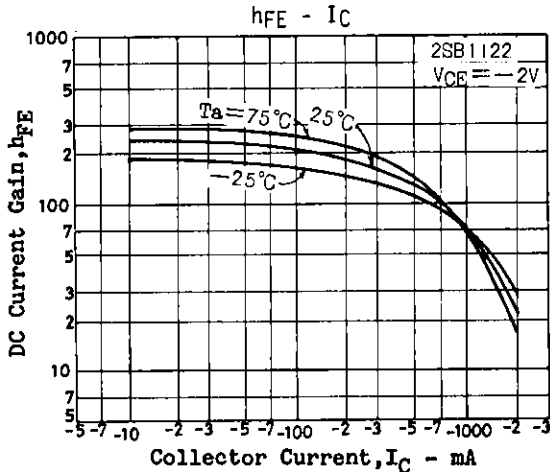
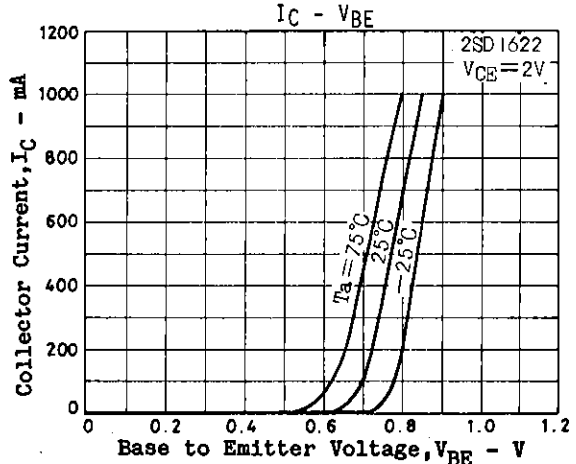
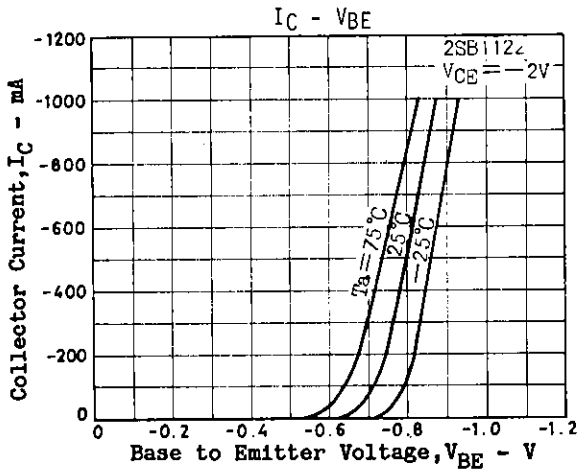
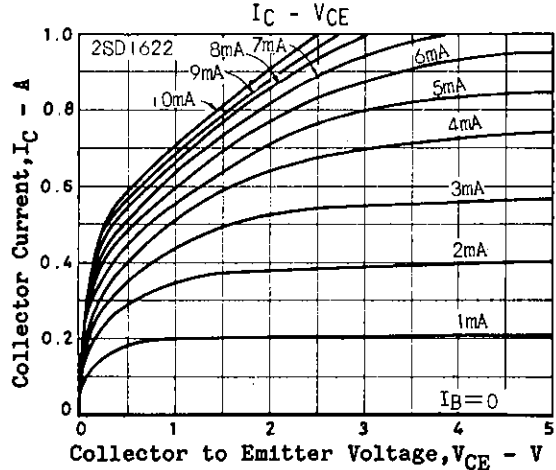
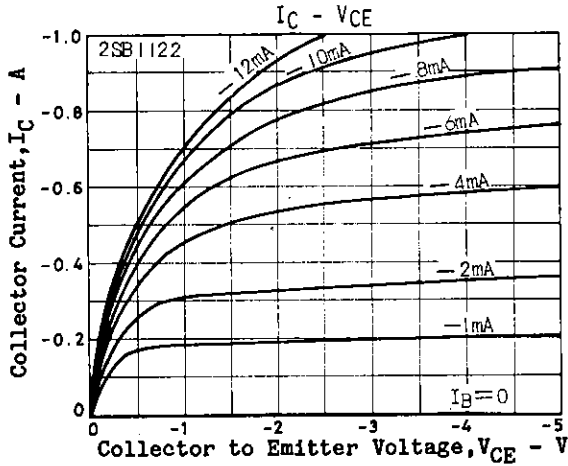
E: Emitter
C: Collector
B: Base
SANYO: PCP

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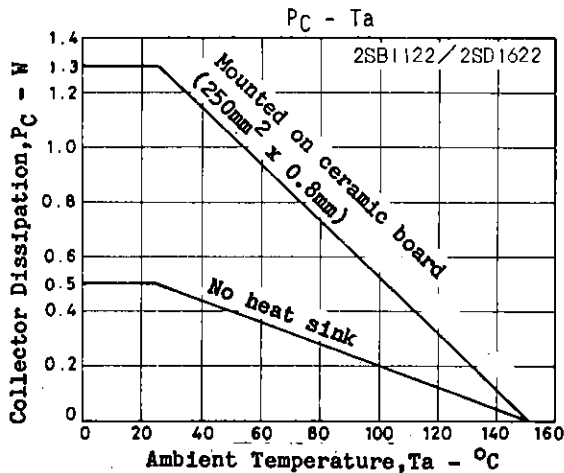
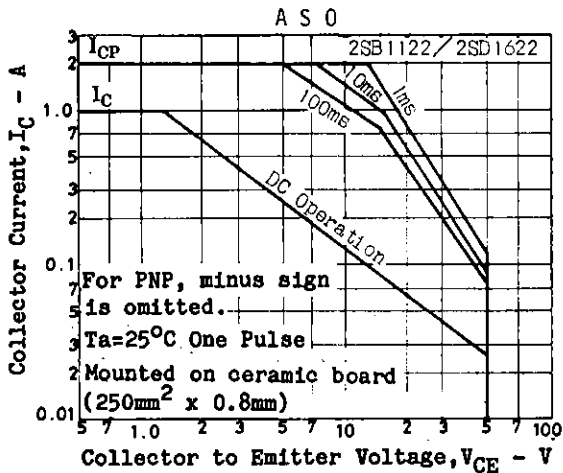
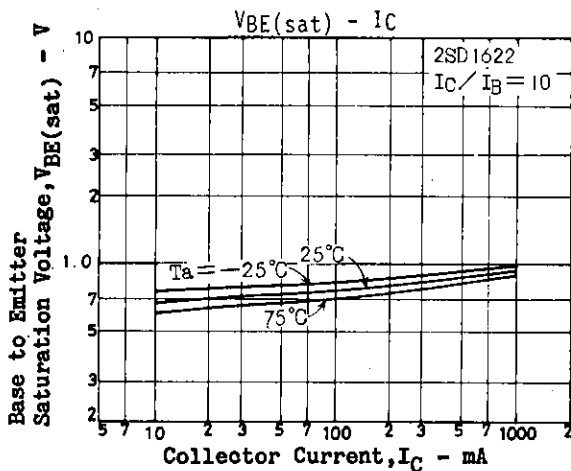
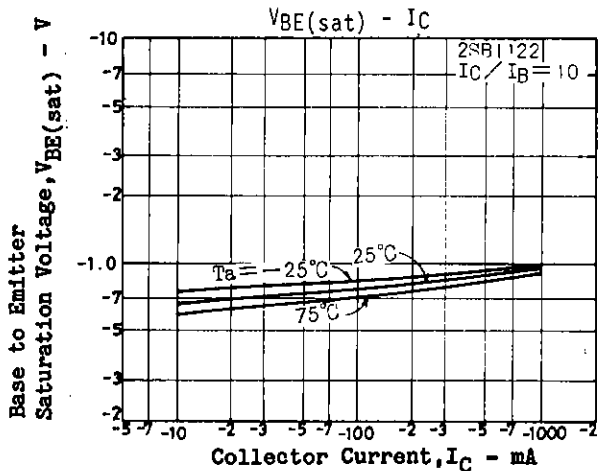
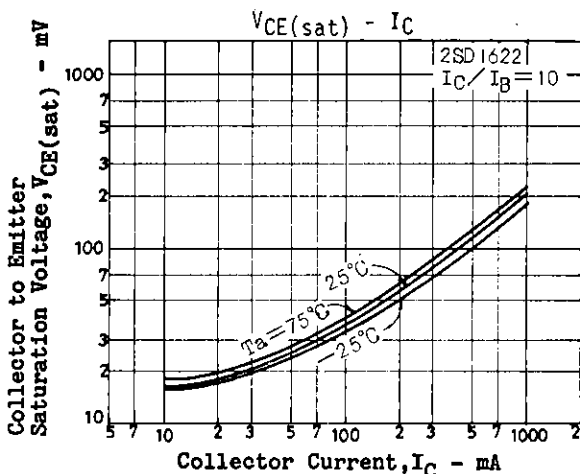
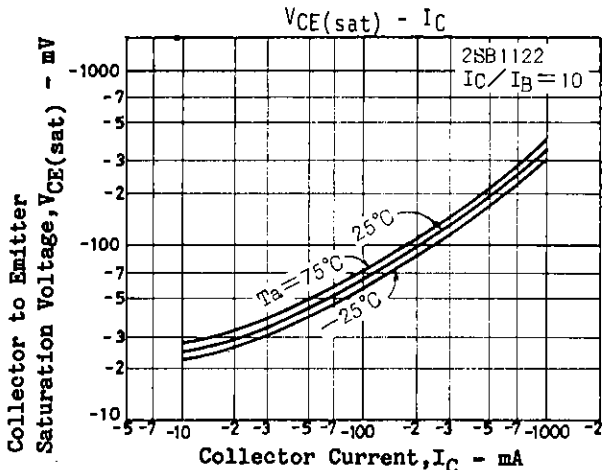
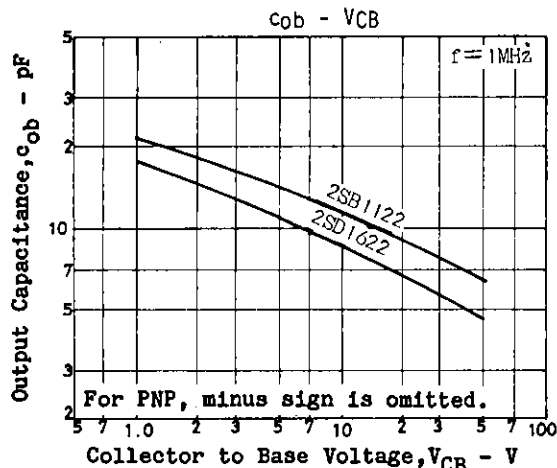
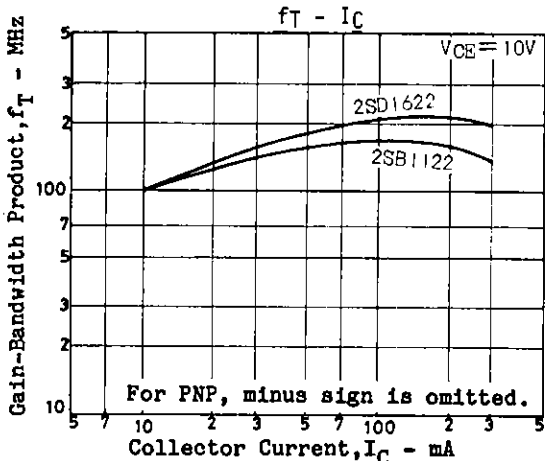
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			min	typ	max	unit
Turn-on Time	t_{on}	See specified Test Circuit.		(40)		ns
			"	40		ns
Storage Time	t_{stg}		"	(300)		ns
			"	350		ns
Fall Time	t_f		"	(30)		ns
			"	30		ns



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