

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_{CE0}	(-)50	V
Emitter to Base Voltage	V_{EB0}	(-)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)	1.3	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

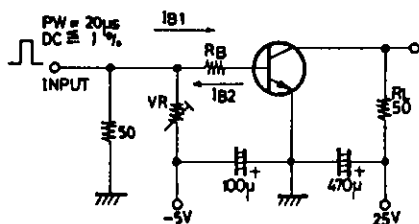
Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=(-)50V, I_E=0$		(-)100		nA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=(-)4V, I_C=0$		(-)100		nA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=(-)2V, I_C=(-)100mA$	100*		560*	
	$h_{FE}(2)$	$V_{CE}=(-)2V, I_C=(-)1A$	30			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)10V, I_C=(-)50mA$		150		MHz
Output Capacitance	c_{ob}	$V_{CB}=(-)10V, f=1MHz$		(12)		pF
				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	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(-)60			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-)50			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0$	(-)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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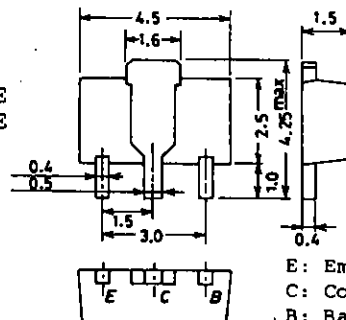
Switching Time Test Circuit $I_C = 10mA, I_{B1} = -10mA, I_{B2} = 500mA$

(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

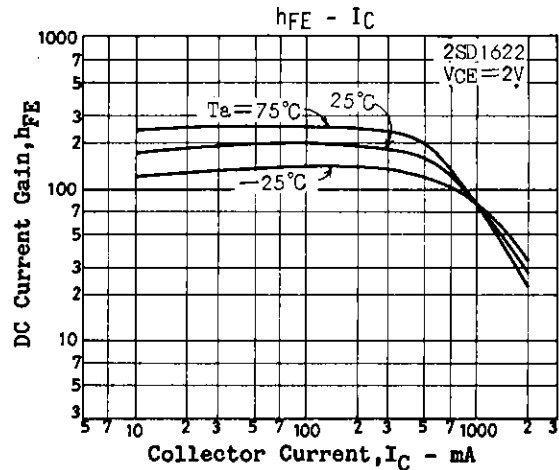
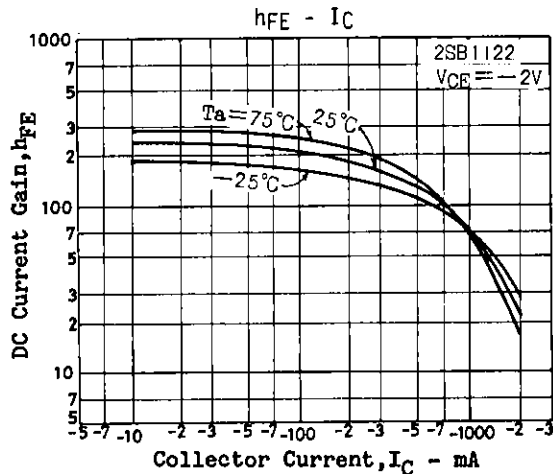
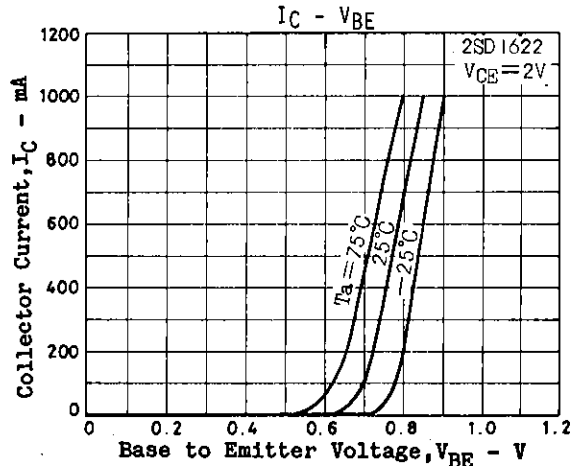
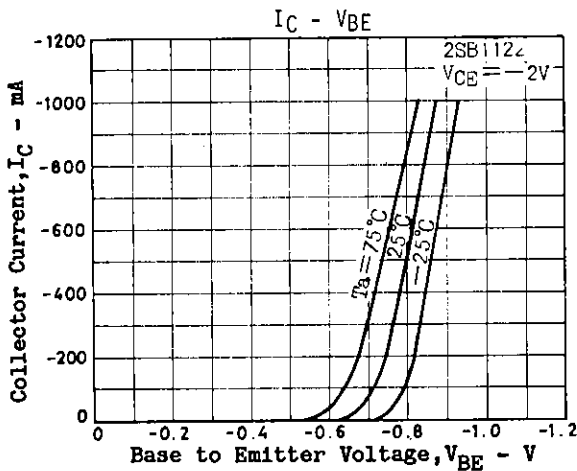
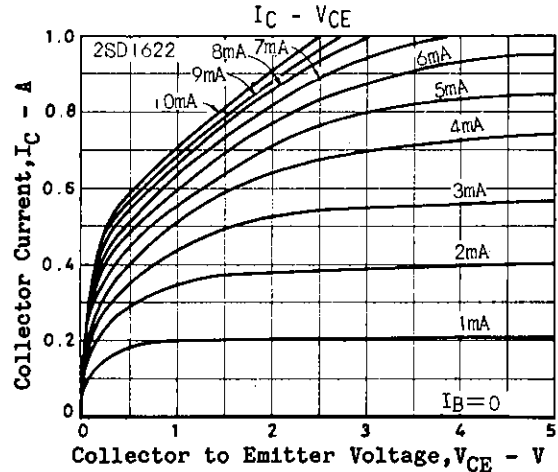
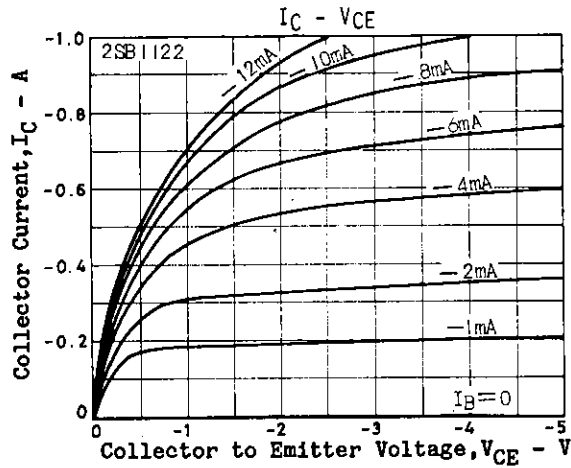
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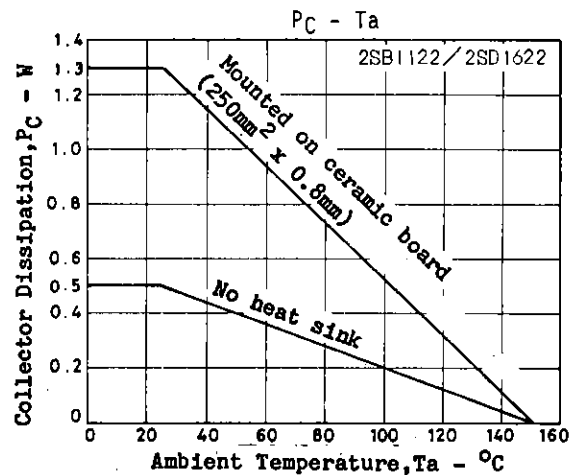
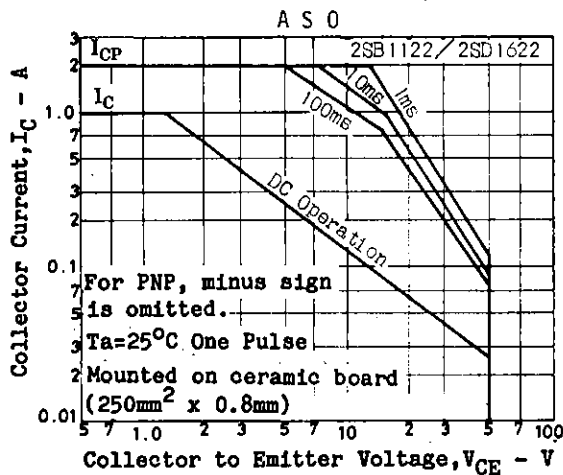
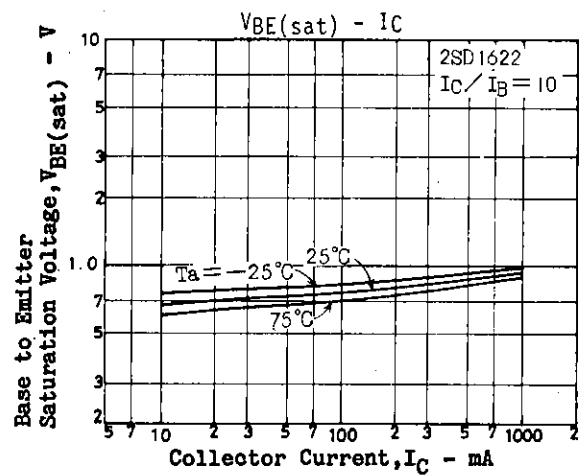
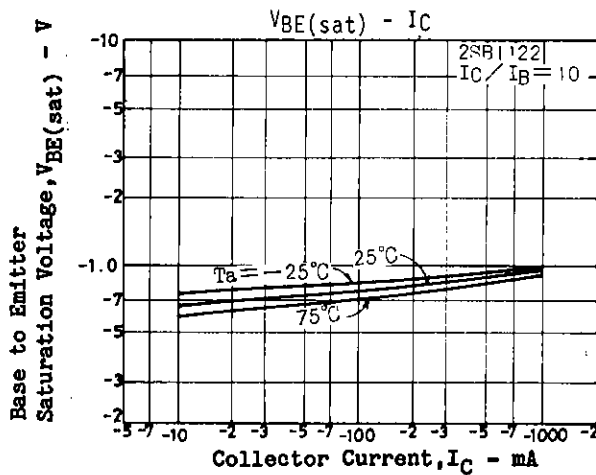
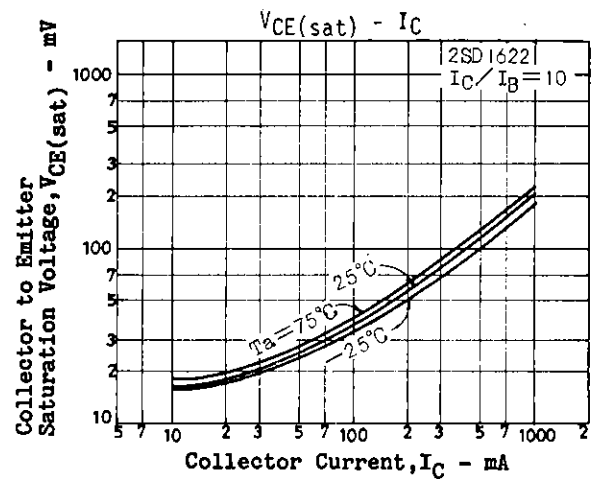
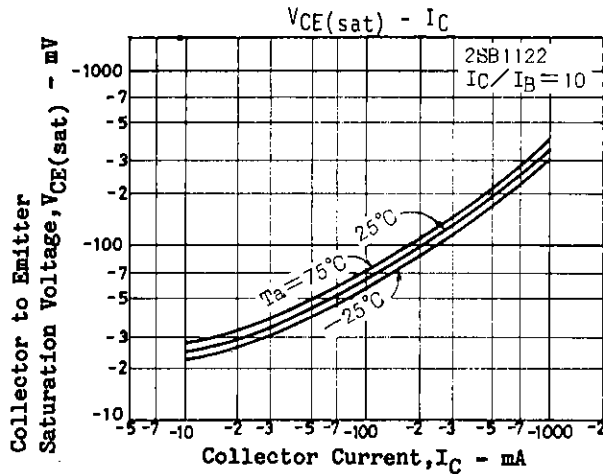
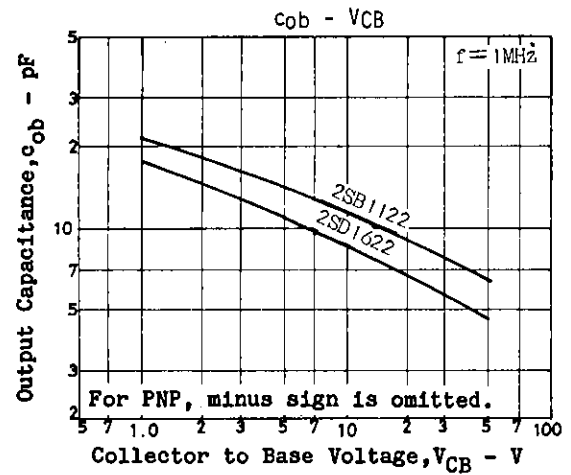
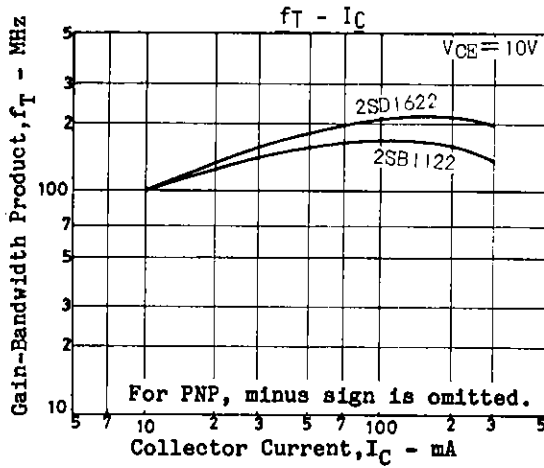
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		min	typ	max	unit
Turn-on Time	t_{on}	See specified Test Circuit.	(40)		ns
		"	40		ns
Storage Time	t_{stg}	"	(300)		ns
		"	350		ns
Fall Time	t_f	"	(30)		ns
		"	30		ns



2SB1122/2SD1622



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