

SANYO	No. 1727B	2SB1123/2SD1623
	PNP/NPN Epitaxial Planar Silicon Transistors High-Current Switching Applications	

Applications

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

Features

- . Adoption of FBET, MBIT processes.
- . Low collector-to-emitter saturation voltage.
- . Large current capacity and wide ASO.
- . Fast switching speed.
- . Very small size making it easy to provide high-density, small-sized hybrid IC's.

(): 2SB1123

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}	(-)6	V
Collector Current	I _C	(-)2	A
Collector Current(Pulse)	I _{CP}	(-)4	A
Collector Dissipation	P _C	500	mW
	P _C (Note)	1.3	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

(Note) Mounted on ceramic board (250mm² x 0.8mm)

Electrical Characteristics at Ta=25°C

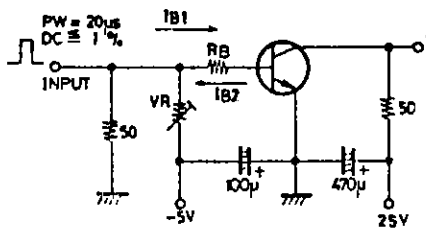
			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} =(-)50V, I _E =0			(-)100	nA
Emitter Cutoff Current	I _{EB0}	V _{EB} =(-)4V, I _C =0			(-)100	nA
DC Current Gain	h _{FE1}	V _{CE} =(-)2V, I _C =(-)100mA	100*		560*	
	h _{FE2}	V _{CE} =(-)2V, I _C =(-)1.5A	40			
Gain-Bandwidth Product	f _T	V _{CE} =(-)10V, I _C =(-)50mA		150		MHz
Output Capacitance	c _{ob}	V _{CB} =(-)10V, f=1MHz		(22)12		pF

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* The 2SB1123/2SD1623 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



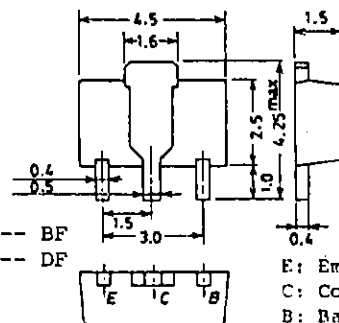
$20I_{B1} = -20I_{B2} = I_C = 500\text{mA}$

(For PNP, the polarity is reversed.)

Unit (Resistance : Ω, Capacitance : F)

Package Dimensions 2038

(unit:mm)



Marking: 2SB1123 -- BF
2SD1623 -- DF

E: Emitter
C: Collector
B: Base

SANYO: PCP
(Bottom View)

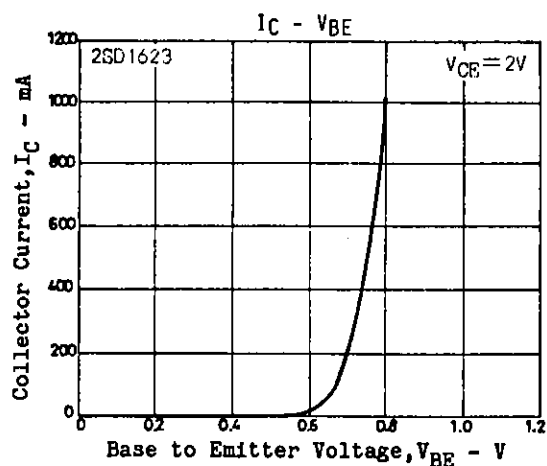
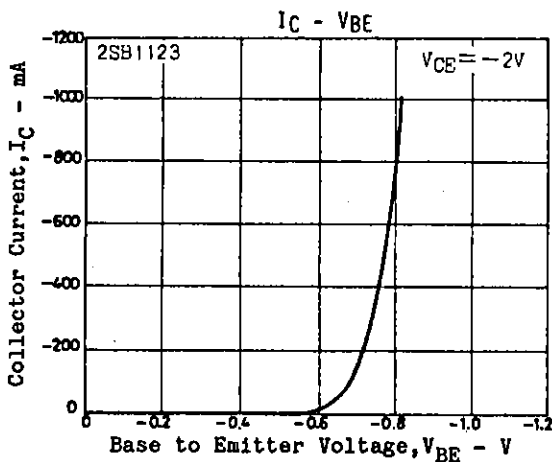
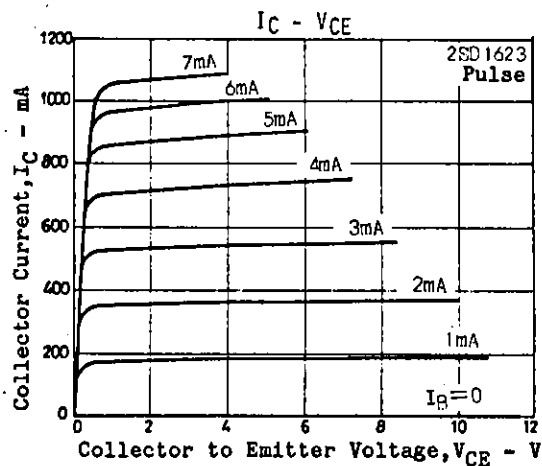
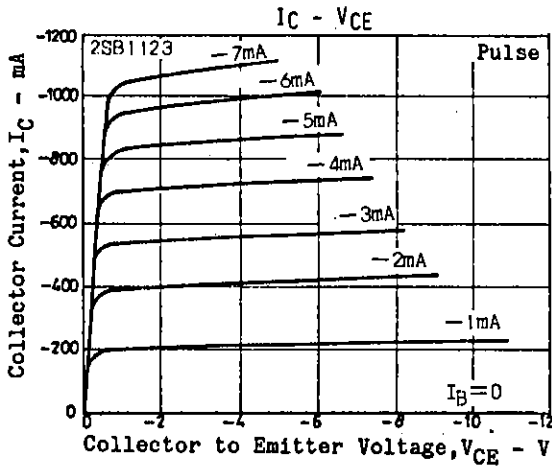
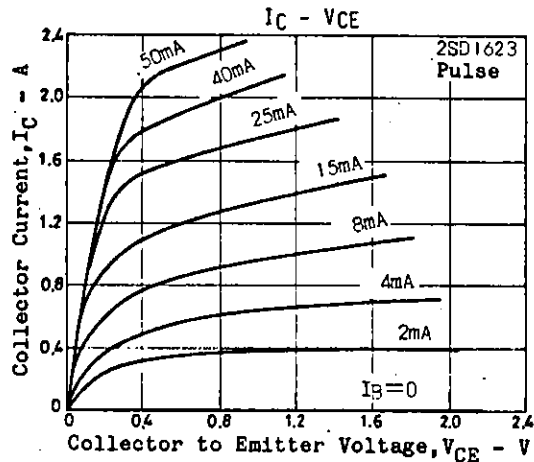
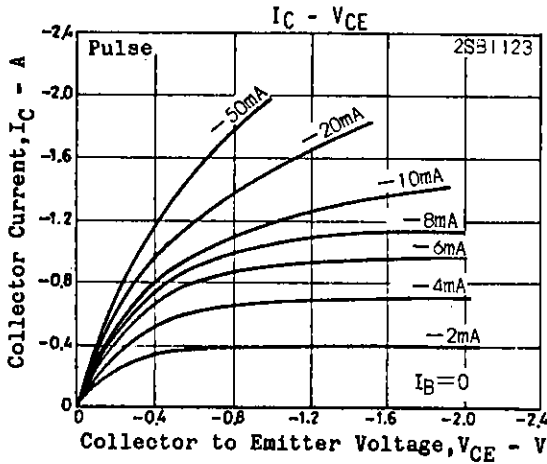
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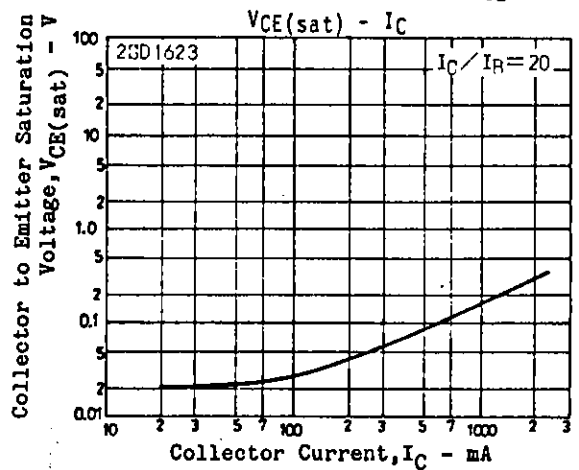
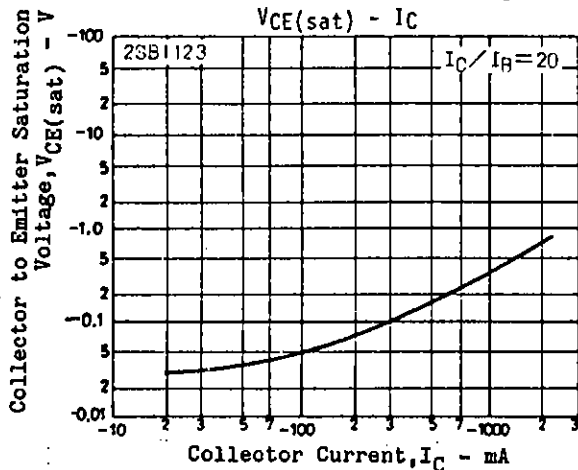
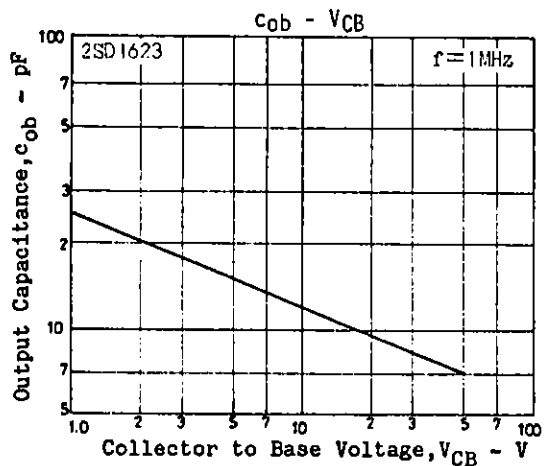
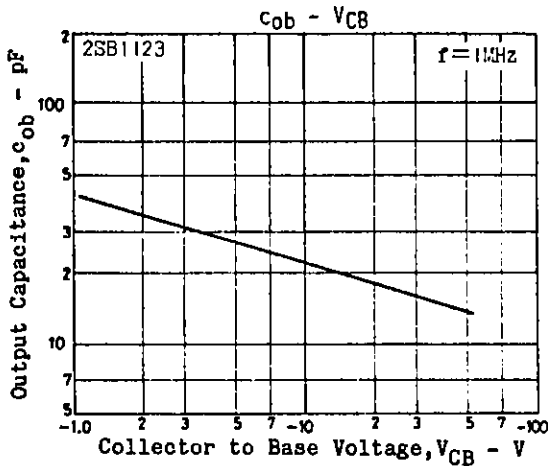
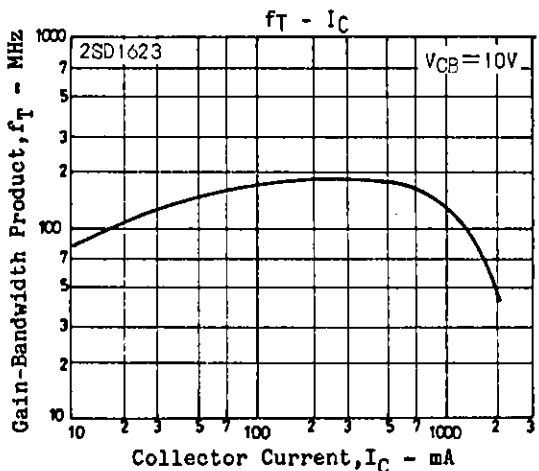
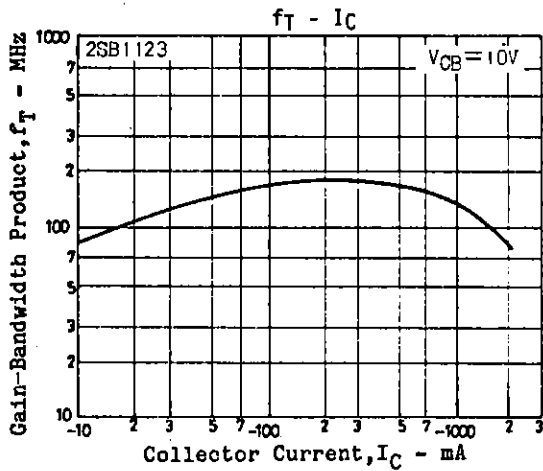
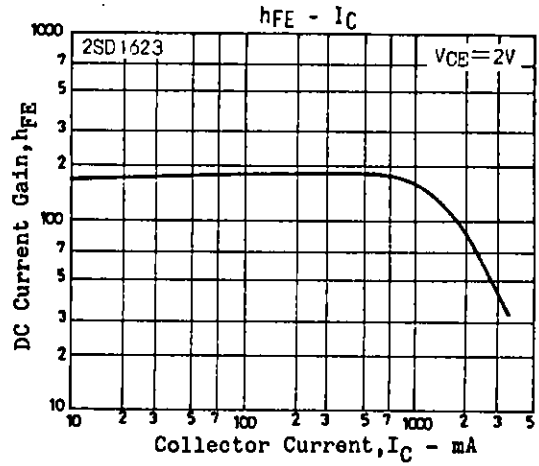
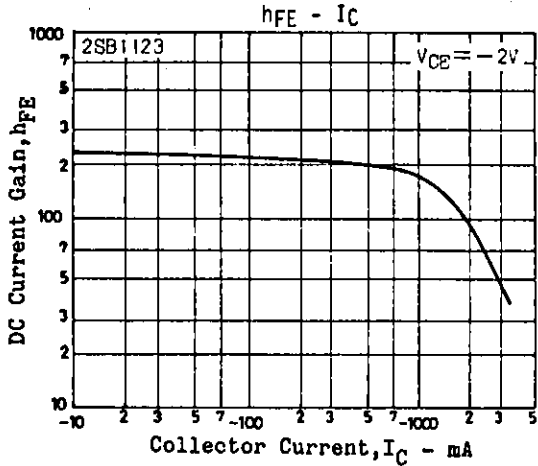
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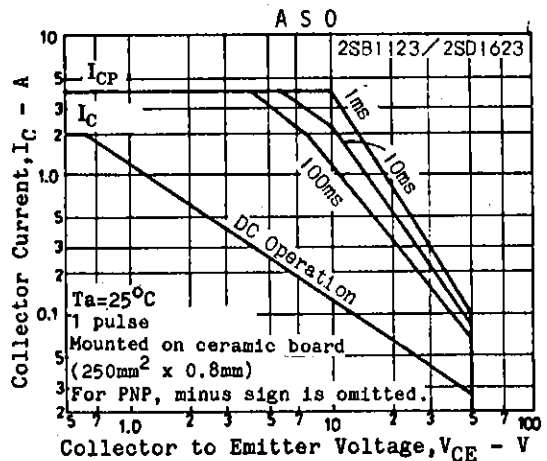
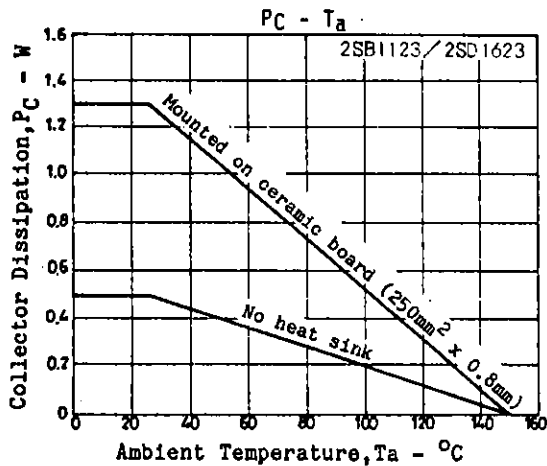
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			min	typ	max	unit
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)1A, I_B=(-)50mA$		(-0.3)	(-0.7)	V
				0.15	0.4	
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)1A, I_B=(-)50mA$		(-)0.9	(-)1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(-)60			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-)50			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0$	(-)6			V
Turn-ON Time	t_{on}	See specified Test Circuit.	(60)	60		ns
Storage Time	t_{stg}	"	(450)	550		ns
Fall Time	t_f	"	(30)	30		ns



2SB1123/2SD1623





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