

SANYO

No.1786A

2SB1120

PNP/NPN Epitaxial Planar Silicon Transistor

High-Current Driver Applications

Applications

- Strobes, voltage regulators, relay drivers, lamp drivers.

Features

- Low collector-to-emitter saturation voltage ($V_{CE(sat)max} = -0.45V$)
- Large current capacity ($I_C = -2.5A$, $I_{CP} = -5A$)
- Very small size making it easy to provide high-density, small-sized hybrid IC's

Absolute Maximum Ratings at $T_a = 25^\circ C$

			unit
Collector to Base Voltage	V_{CBO}	-20	V
Collector to Emitter Voltage	V_{CEO}	-10	V
Emitter to Base Voltage	V_{EBO}	-7	V
Collector Current	I_C	-2.5	A
Collector Current(Pulse)	I_{CP}	-5	A
Collector Dissipation	P_C	500	mW
	P_C Mounted on ceramic board ($250mm^2 \times 0.8mm$)	1.3	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

Electrical Characteristics at $T_a = 25^\circ C$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = -16V, I_E = 0$			-100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-100	nA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = -2V, I_C = -500mA$	100*		560	
	$h_{FE(2)}$	$V_{CE} = -2V, I_C = -3A$	70			
Gain-Bandwidth Product	f_T	$V_{CE} = -10V, I_C = -50mA$		250		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = -1.5A, I_B = -0.15A$		-0.25-0.45		V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-20			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-10			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-7			V
Output Capacitance	c_{ob}	$V_{CB} = -10V, f = 1MHz$		70		pF

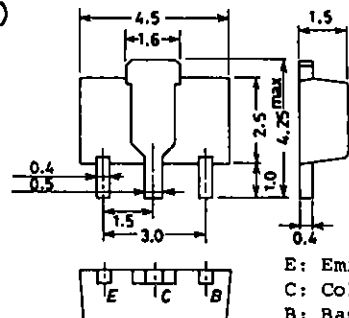
*:The 2SB1120 is classified by 500mA h_{FE} as follows:

100	E	200	160	F	320	280	G	560
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Marking :BC

 h_{FE} rank :E,F,G**Package Dimensions 2038**

(unit:mm)

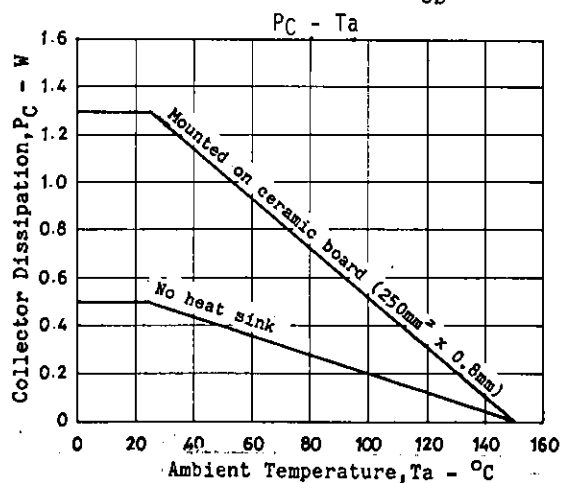
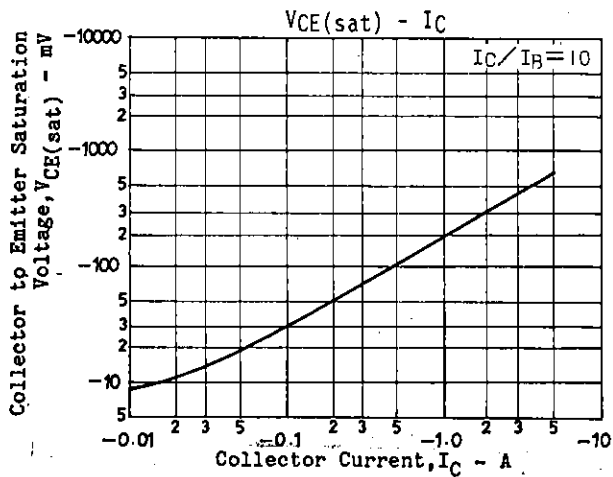
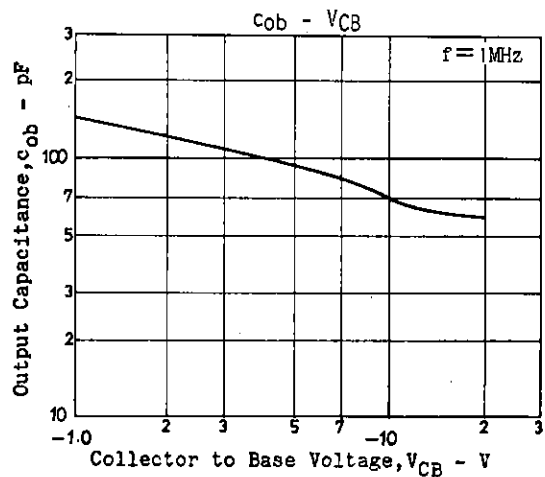
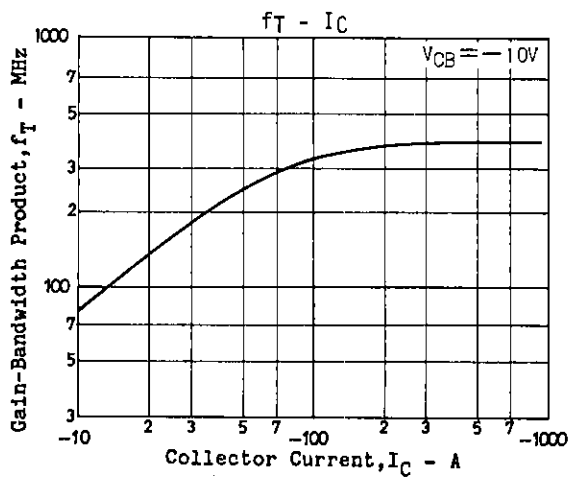
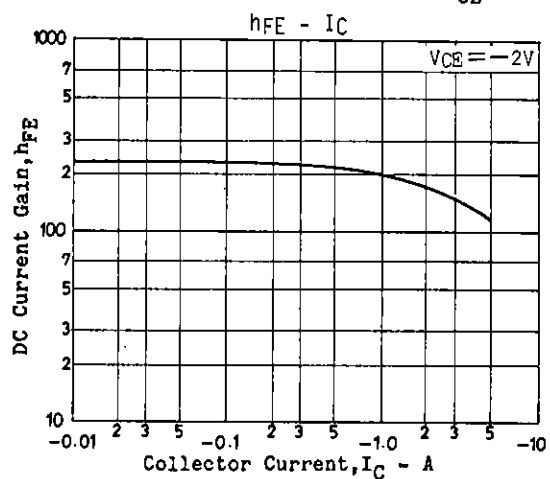
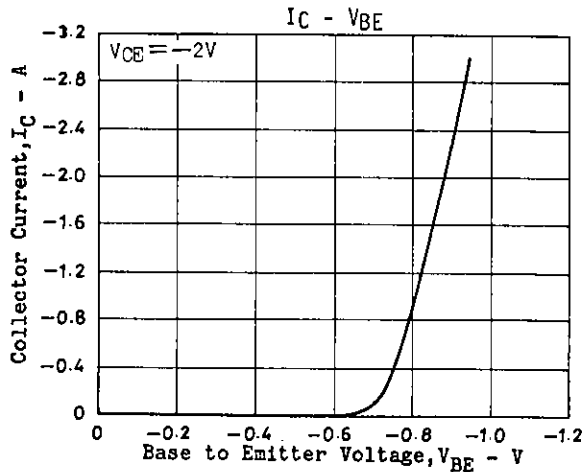
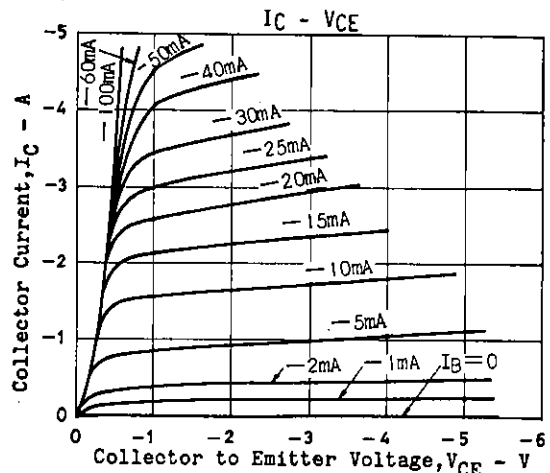
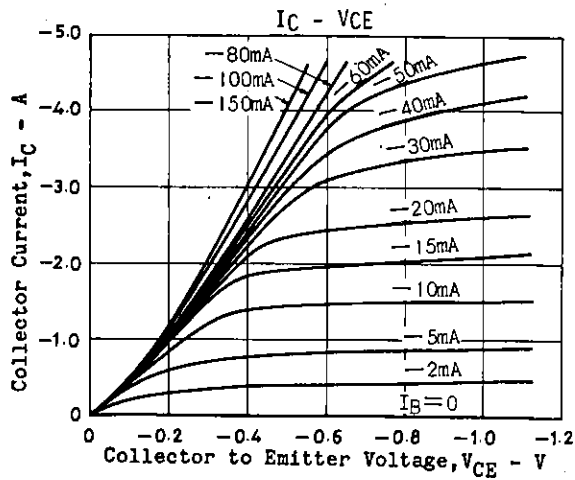


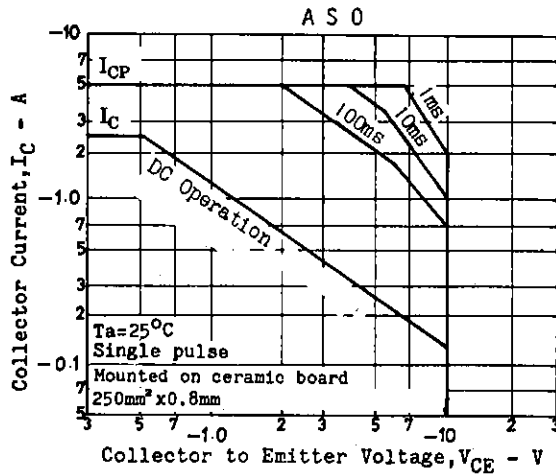
E: Emitter
C: Collector
B: Base

SANYO: PCP
(Bottom View)

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