

No.1787A

2SB1121/2SD1621

PNP/NPN Epitaxial Planar Silicon Transistors

High-Current Driver 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.

(): 2SB1121

Absolute Maximum Ratings at Ta	=25 ^o C		unit
Collector to Base Voltage	_Д СВО	(-)30	V
Collector to Emitter Voltage	ACEO	(~)25	V
Emitter to Base Voltage	VEBO	(-)6	v
Collector Current	I _C	(-)2	A
Collector Current(Pulse)	I _{CP}	(-)5	A
Collector Dissipation	PC	500	mW
	Pc Mounted on ceramic boa	rd (250mm ² x 0.8mm) 1.3	W
Junction Temperature	P _C Mounted on ceramic boa	150	°c
Storage Temperature	Tstg	-55 to +150	°C

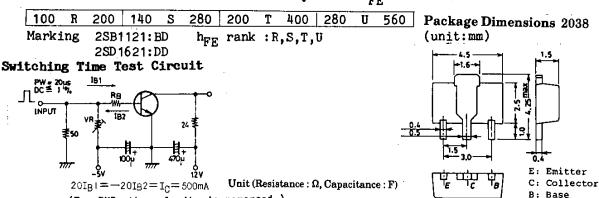
Electrical	Characteristics	at	Ta=25°C
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(For PNP, the polarity is reversed.)

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Collector Cutoff Current	I_{CBO}	V _{CB} =(-)20V,I _E =0		(-)0.1	μΑ
Emitter Cutoff Current	I _{EBO}	$V_{EB} = (-)4V, I_{C} = 0$		(-)0.1	μA
DC Current Gain	hFE(1)	$V_{CE}^{DE} = (-)2V, I_{C} = (-)100 \text{mA}$	100*		560	ř
	hFE(2)	$V_{CE}^{OL} = (-)2V, I_{C} = (-)1.5A$	65			
Gain-Bandwidth Product	f	$V_{CE}^{E} = (-)10V, I_{C} = (-)50mA$		150		MHz
C-E Saturation Voltage	VCE(sat)	$I_{C}=(-)1.5A, I_{B}=(-)75mA$		0.18	0.4	v
	OB(Sac)	С 1 В		(-0.35)(-0.6) V

B-E Saturation Voltage $V_{BE(sat)}$ $I_{C}=(-)1.5A, I_{B}=(-)75mA$ (-)0.85(-)1.2 V Continued on next page.

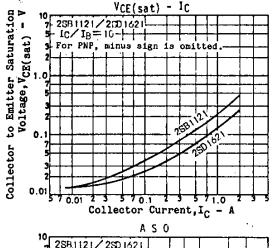
*: The 2SB1121/2SD1621 are classified by 100mA h_{FE} as follows:

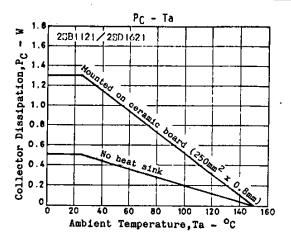


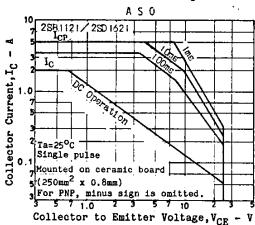
SANYO Electric Co., Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

SANYO: PCP

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C-B Breakdown Voltage		T =/ \4	Out T = 0		• -	max	ur
	V(BR)CBO	TC=(-)1	0μΑ, I _E =0	(-)30			
C-E Breakdown Voltage	V(BR)CEO	I _C =(-)1	$mA, R_{BE} = \infty$ $0\mu A, I_{C} = 0$ $10V, f = 1MHz$	(-)25			
E-B Breakdown Voltage	V(BR)EBO	I _F =(-)1	OuA, Ic=0	(-)6	5		
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