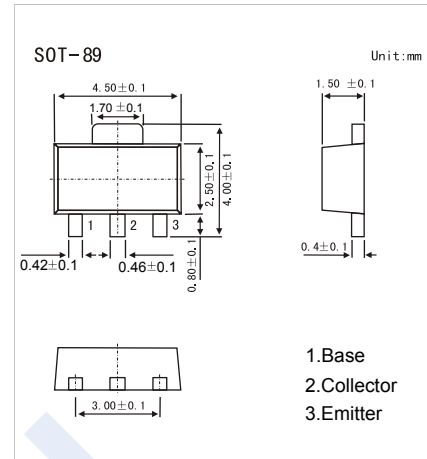


PNP Transistors

2SB1121

■ Features

- Low collector-to-emitter saturation voltage.
- Large current capacity and wide ASO.
- Fast switching speed.
- Complementary to 2SD1621



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	-30	V
Collector - Emitter Voltage	V _{CEO}	-25	
Emitter - Base Voltage	V _{EBO}	-6	
Collector Current - Continuous	I _C	-2	A
Collector Current - Pulse	I _{CP}	-5	
Collector Power Dissipation	P _C	500	mW
Junction Temperature	T _J	150	°C
Storage Temperature range	T _{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _C = -100 μA, I _E =0	-30			V
Collector- emitter breakdown voltage	V _{CEO}	I _C = -1 mA, R _{BE} =∞	-25			
Emitter - base breakdown voltage	V _{EBO}	I _E = -100 μA, I _C =0	-6			
Collector-base cut-off current	I _{CB0}	V _{CB} = -20 V, I _E =0			-0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} = -4V, I _C =0			-0.1	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-1.5A, I _B =-75mA		-0.35	-0.6	V
Base - emitter saturation voltage	V _{BE(sat)}	I _C =-1.5A, I _B =-75mA		-0.85	-1.2	
DC current gain	h _{FE(1)}	V _{CE} = -2V, I _C = -100mA	100		560	
	h _{FE(2)}	V _{CE} = -2V, I _C = -1.5A	65			
Turn-on time	t _{on}	See specified Test Circuit.		60		ns
Storage time	t _{stg}			350		
Turn -off time	t _{off}			25		
Collector output capacitance	C _{ob}	V _{CB} = -10V, I _E = 0, f=1MHz		32		pF
Transition frequency	f _T	V _{CE} = -10V, I _C = -50mA		150		MHz

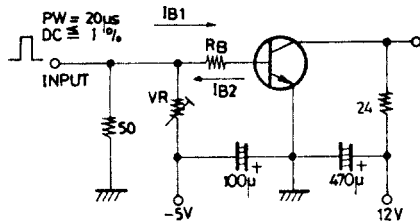
■ Classification of h_{FE(1)}

Type	2SB1121-R	2SB1121-S	2SB1121-T	2SB1121-U
Range	100-200	140-280	200-400	280-560
Marking	BDR	BDS	BDT	BDU

PNP Transistors

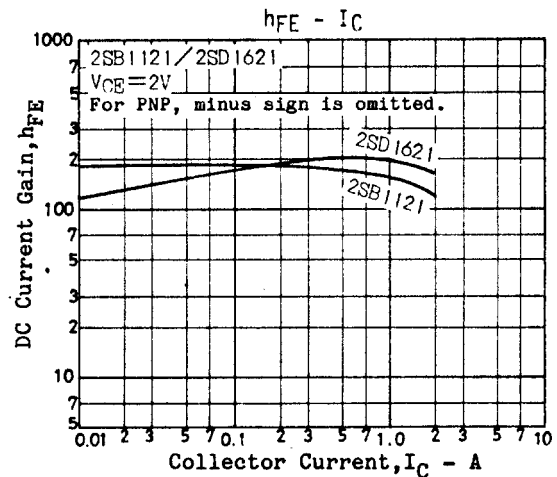
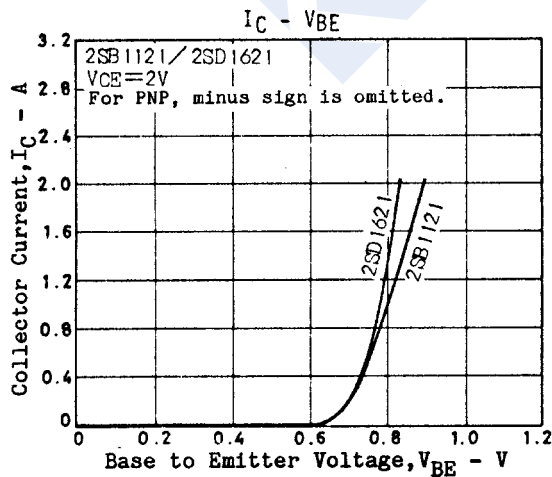
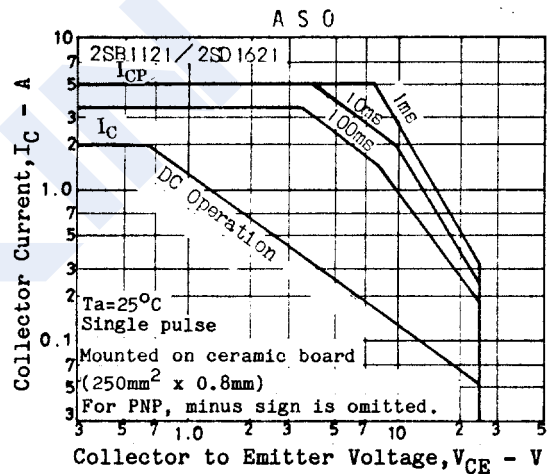
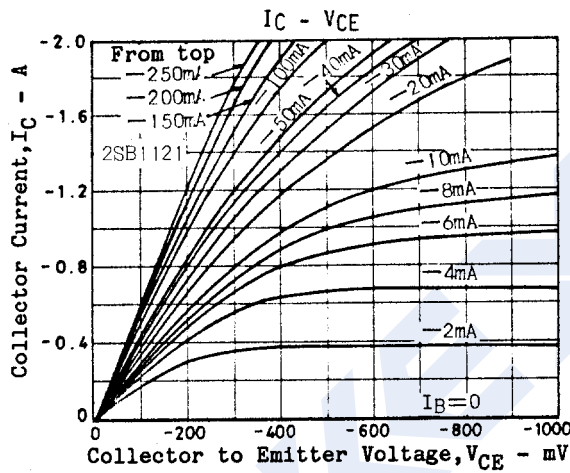
2SB1121

Switching Time Test Circuit



$20I_{B1} = -20I_{B2} = I_C = 500\text{mA}$
 (For PNP, the polarity is reversed.)
 Unit (resistance : Ω , capacitance : F)

Typical Characteristics



PNP Transistors

2SB1121

■ Typical Characteristics

