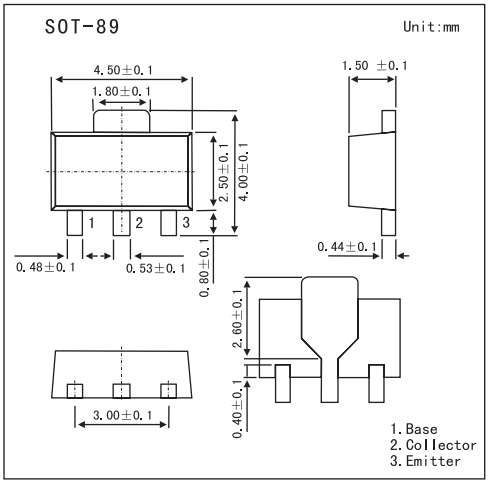
PNP Epitaxial Planar Silicon Transistors

2SB1121



■ 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 highdensity, small-sized hybrid ICs.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-30	V
Collector-emitter voltage	V_{CEO}	-25	V
Emitter-base voltage	V_{EBO}	-6	V
Collector current	I_C	-2	A
Collector current (pulse)	I_{CP}	-5	A
Collector dissipation	P_C	500	mW
Jumction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

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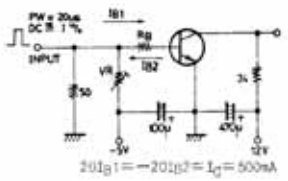
■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = -20V , I_E = 0			-0.1	μA
Emitter cutoff current	I_{EBO}	V_{CB} = -4V , I_E = 0			-0.1	μA
DC current Gain	h_{FE}	V_{CE} = -2V , I_C = -100mA	100		560	
Gain bandwidth product	f_T	V_{CE} = -10V , I_C = -50mA		150		MHz
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	V
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = -10μA , I_E = 0	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = -1mA , R_{BE} = ∞	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = -10μA , I_C = 0	-6			V
Output capacitance	C_{ob}	V_{CB} = -10V , f = 1MHz		32		pF
Turn-on time	t_{on}	Switching Time Test Circuit 		60		ns
Storage time	t_{stg}			350		ns
Fall time	t_f			25		ns

■ h_{FE} Classification

Marking	BC		
Rank	E	F	G
hFE	100～200	160～320	280～560