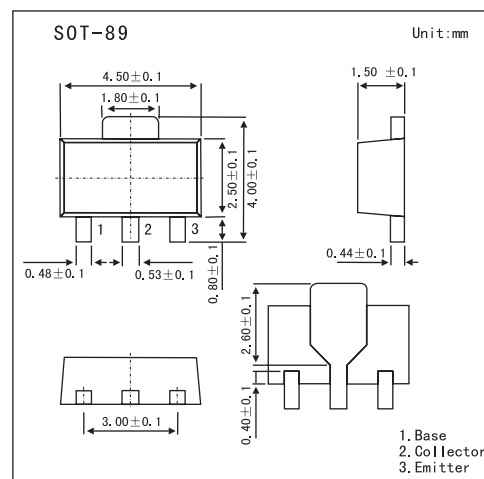


Silicon PNP Epitaxial

2SB1000

■ Features

- Low frequency amplifier.

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CB0}	-25	V
Collector to emitter voltage	V_{CE0}	-20	V
Emitter to base voltage	V_{EB0}	-5	V
Collector current	I_C	-1	A
peak collector current	I_{CP}^*	-1.5	A
Collector power dissipation	P_C	1	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* $PW \leq 10 \text{ ms}$; $d \leq 0.02$.

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector to base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10 \mu\text{A}$, $I_E = 0$	-25			V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1 \text{ mA}$, $R_{BE} = \infty$	-20			V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10 \mu\text{A}$, $I_C = 0$	-5			V
Collector cutoff current	I_{CBO}	$V_{CB} = -20 \text{ V}$, $I_E = 0$			-0.1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -4 \text{ V}$, $I_C = 0$			-0.1	μA
DC current transfer ratio *	h_{FE}	$V_{CE} = -2 \text{ V}$, $I_C = -0.5 \text{ A}$	85		240	
Collector to emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -0.8 \text{ A}$, $I_B = -0.08 \text{ A}$		-0.2	-0.3	V
Base to emitter saturation voltage *	$V_{BE(sat)}$	$I_C = -0.8 \text{ A}$, $I_B = -0.08 \text{ A}$		-0.94	-1.1	V
Gain bandwidth product	f_T	$V_{CE} = -2 \text{ V}$, $I_C = -0.15 \text{ A}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10 \text{ V}$, $I_E = 0$ $f=1\text{MHz}$		38		pF

■ h_{FE} Classification

Marking	AH	AJ
h_{FE}	85~170	120~240