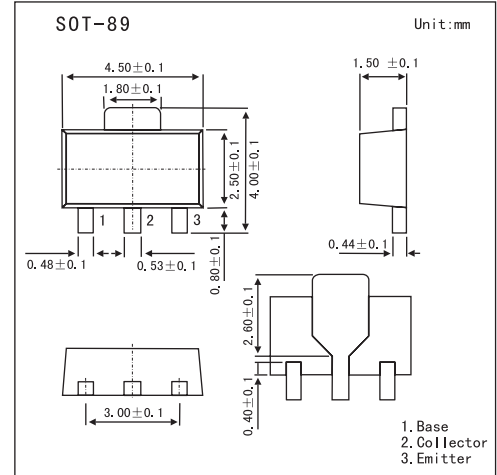


## Silicon PNP Epitaxial

## 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	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -4 \text{ V}$ , $I_C = 0$			-0.1	$\mu\text{A}$
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

## ■ hFE Classification

Marking	AH	AJ
hFE	85~170	120~240