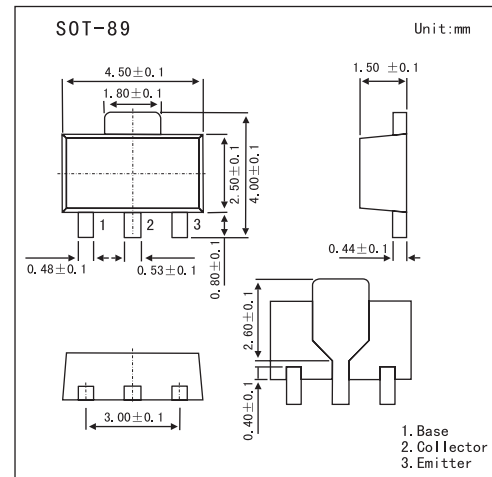


## PNP Epitaxial Planar Silicon Transistors

## 2SB1122

## ■ Features

- Adoption of FBET process..
- Very small size making it easy to provide highdensity hybrid IC's.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	-60	V
Collector-emitter voltage	$V_{CEO}$	-50	V
Emitter-base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-1	A
Collector current (pulse)	$I_{CP}$	-2	A
Collector dissipation	$P_C$	500	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

## 2SB1122

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Collector cutoff current	ICBO	V <sub>CB</sub> = -50V, I <sub>E</sub> = 0			-100	nA	
Emitter cutoff current	IEBO	V <sub>CB</sub> = -4V, I <sub>E</sub> = 0			-100	nA	
DC current Gain	hFE	V <sub>CE</sub> = -2V, I <sub>C</sub> = -100mA	100		560		
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -50mA		150		MHz	
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, f = 1MHz		12		pF	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA		-180	-500	V	
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA		-0.9	-1.2	V	
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -10μA, I <sub>E</sub> = 0	-60			V	
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1mA, R <sub>BE</sub> = ∞	-50			V	
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10μA, I <sub>C</sub> = 0	-5			V	
Turn-on time	ton	<p>I<sub>C</sub> = 10   I<sub>B1</sub> = -10   I<sub>B2</sub> = 500mA</p>		40		ns	
Storage time	tstg				300		ns
Fall time	tf				30		ns

## ■ hFE Classification

Marking	BE			
Rank	R	S	T	U
hFE	100~200	140~280	200~400	280~560