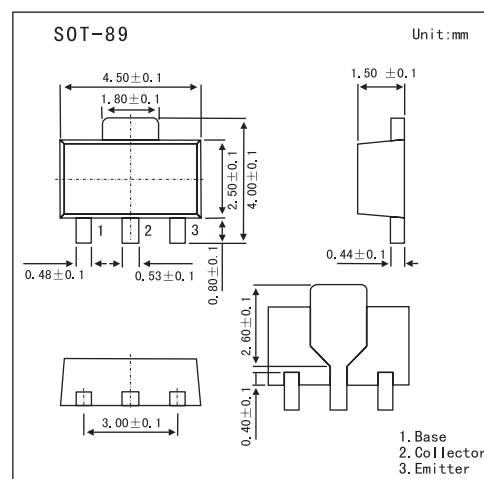


Silicon PNP Epitaxial

2SB1002

■ Features

- Low frequency power amplifier

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-70	V
Collector to emitter voltage	V_{CEO}	-50	V
Emitter to base voltage	V_{EBO}	-6	V
Collector current	I_C	-1	A
peak collector current	I_{CP}^{*1}	-1.5	A
Collector power dissipation	P_C^{*2}	1	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

*2. Value on the alumina ceramic board (12.5 X 20 X 0.7 mm)

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector to base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10 \mu\text{A}$, $I_E = 0$	-70			V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1 \text{ mA}$, $R_{BE} = \infty$	-50			V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10 \mu\text{A}$, $I_C = 0$	-6			V
Collector cutoff current	I_{CBO}	$V_{CB} = -50\text{V}$, $I_E = 0$			-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}	$V_{CE} = -2 \text{ V}$, $I_C = -0.1 \text{ A}$	100		320	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1 \text{ A}$, $I_B = -0.1 \text{ A}$			-0.6	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1 \text{ A}$, $I_B = -0.1 \text{ A}$			-1.2	V
Gain bandwidth product	f_T	$V_{CE} = -2 \text{ V}$, $I_C = -10 \text{ mA}$		150		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$		35		pF

■ h_{FE} Classification

Marking	CH	CJ
h_{FE}	100~200	160~320