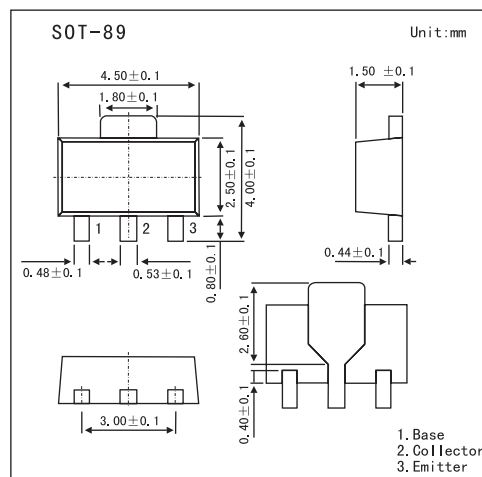


# 2SB1002

## ■ Features

- Low frequency power amplifier



## ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector to base voltage	V <sub>CB0</sub>	-70	V
Collector to emitter voltage	V <sub>CEO</sub>	-50	V
Emitter to base voltage	V <sub>EBO</sub>	-6	V
Collector current	I <sub>C</sub>	-1	A
peak collector current	I <sub>CP</sub> *1	-1.5	A
Collector power dissipation	P <sub>C</sub> *2	1	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

\*1. PW ≤ 10 ms; d ≤ 0.02.

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

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector to base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -10 μA, I <sub>E</sub> = 0	-70			V
Collector to emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1 mA, R <sub>BE</sub> = ∞	-50			V
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10 μA, I <sub>C</sub> = 0	-6			V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = -50V, I <sub>E</sub> = 0			-0.1	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = -4 V, I <sub>C</sub> = 0			-0.1	μA
DC current transfer ratio	h <sub>FE</sub>	V <sub>CE</sub> = -2 V, I <sub>C</sub> = -0.1 A	100		320	
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -1 A, I <sub>B</sub> = -0.1 A			-0.6	V
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -1 A, I <sub>B</sub> = -0.1 A			-1.2	V
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = -2 V, I <sub>C</sub> = -10 mA		150		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10 V, I <sub>E</sub> = 0, f = 1 MHz		35		pF

## ■ hFE Classification

Marking	CH	CJ
hFE	100~200	160~320