

Silicon PNP Epitaxial

2SB1002

■ Features

- Low frequency power amplifier

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector to base voltage	V _{CB0}	-70	V
Collector to emitter voltage	V _{CE0}	-50	V
Emitter to base voltage	V _{EB0}	-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	°C
Storage temperature	T _{stg}	-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 _{(BR)CBO}	I _C = -10 μA, I _E = 0	-70			V
Collector to emitter breakdown voltage	V _{(BR)CEO}	I _C = -1 mA, R _{BE} = ∞	-50			V
Emitter to base breakdown voltage	V _{(BR)EBO}	I _E = -10 μA, I _C = 0	-6			V
Collector cutoff current	I _{CBO}	V _{CB} = -50V, I _E = 0			-0.1	μA
Emitter cutoff current	I _{EBO}	V _{EB} = -4 V, I _C = 0			-0.1	μA
DC current transfer ratio	h _{FE}	V _{CE} = -2 V, I _C = -0.1 A	100		320	
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = -1 A, I _B = -0.1 A			-0.6	V
Base to emitter saturation voltage	V _{BE(sat)}	I _C = -1 A, I _B = -0.1 A			-1.2	V
Gain bandwidth product	f _T	V _{CE} = -2 V, I _C = -10 mA		150		MHz
Collector output capacitance	C _{ob}	V _{CB} = -10 V, I _E = 0, f = 1 MHz		35		pF

■ hFE Classification

Marking	CH	CJ
hFE	100~200	160~320

