

2SB1207

Silicon PNP epitaxial planar type

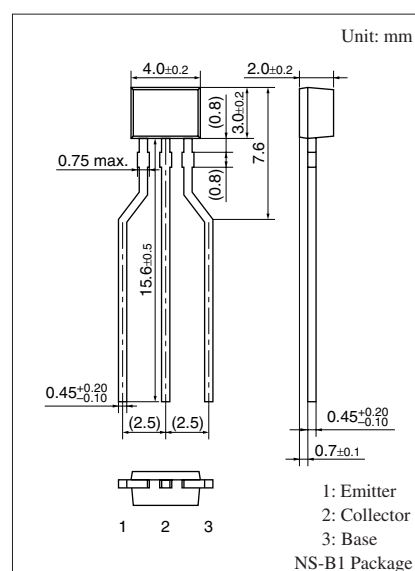
For low-voltage output amplification

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Optimum for high-density mounting
- Allowing supply with the radial taping

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	-15	V
Collector-emitter voltage (Base open)	V_{CEO}	-10	V
Emitter-base voltage (Collector open)	V_{EBO}	-7	V
Collector current	I_C	-0.5	A
Peak collector current	I_{CP}	-1	A
Collector power dissipation	P_C	300	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

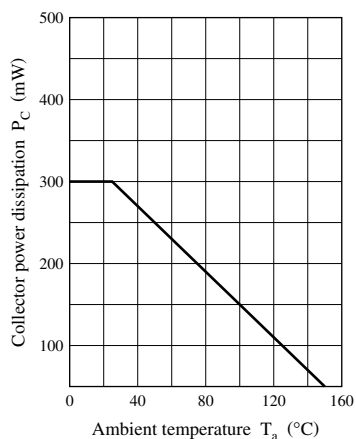
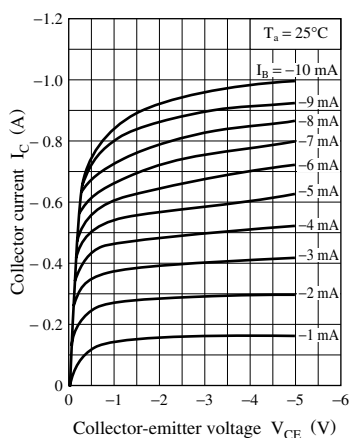
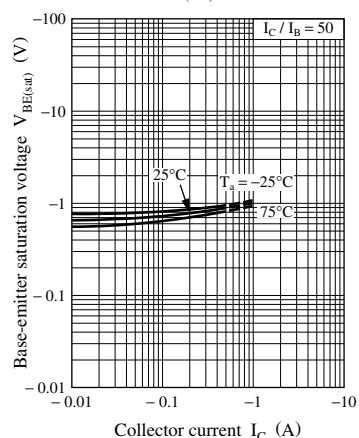
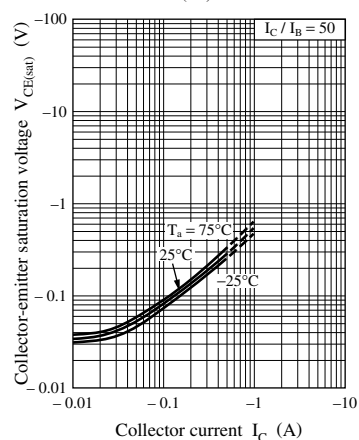
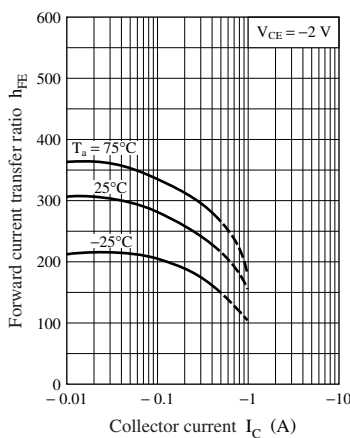
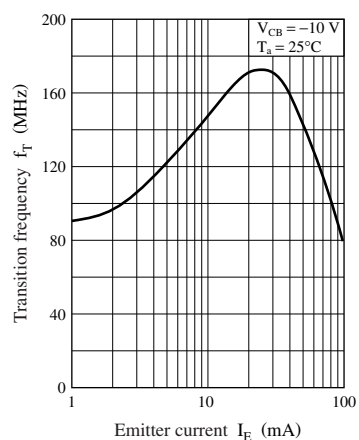
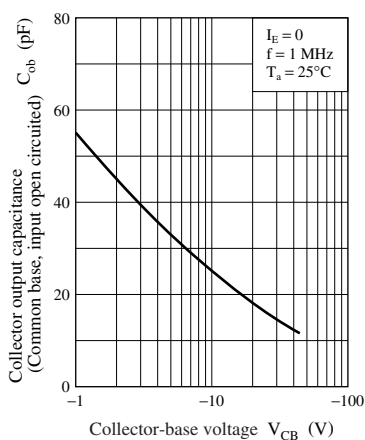
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10\ \mu\text{A}$, $I_E = 0$	-15			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -1\ \text{mA}$, $I_B = 0$	-10			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10\ \mu\text{A}$, $I_C = 0$	-7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -10\ \text{V}$, $I_E = 0$			-100	nA
Forward current transfer ratio *1	h_{FE1} *2	$V_{CE} = -2\ \text{V}$, $I_C = -0.5\ \text{A}$	130		350	—
	h_{FE2}	$V_{CE} = -2\ \text{V}$, $I_C = -1\ \text{A}$	60			—
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = -0.4\ \text{A}$, $I_B = -8\ \text{mA}$		-0.16	-0.30	V
Base-emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = -0.4\ \text{A}$, $I_B = -8\ \text{mA}$		-0.8	-1.2	V
Transition frequency	f_T	$V_{CB} = -10\ \text{V}$, $I_E = 50\ \text{mA}$, $f = 200\ \text{MHz}$		130		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$		22		pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

*2: Rank classification

Rank	R	S
h_{FE1}	130 to 220	180 to 350

$P_C - T_a$  $I_C - V_{CE}$  $V_{BE(sat)} - I_C$  $V_{CE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CB}$ 

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