

2SB1219

Silicon PNP epitaxial planar type

For general amplification

Complementary to 2SD1820

■ Features

- Large collector current I_C
- S-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	-30	V
Collector-emitter voltage (Base open)	V_{CEO}	-25	V
Emitter-base voltage (Collector open)	V_{EBO}	-5	V
Collector current	I_C	-500	mA
Peak collector current	I_{CP}	-1	A
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

■ Package

- Code
SMini3-G1

• Pin Name

1. Base
2. Emitter
3. Collector

■ Marking Symbol: 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}	$I_C = -10\ \mu\text{A}$, $I_E = 0$	-30			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -2\ \text{mA}$, $I_B = 0$	-25			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10\ \mu\text{A}$, $I_C = 0$	-5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -20\ \text{V}$, $I_E = 0$			-0.1	μA
Forward current transfer ratio *1	h_{FE1} *2	$V_{CE} = -10\ \text{V}$, $I_C = -150\ \text{mA}$	85		340	—
	h_{FE2}	$V_{CE} = -10\ \text{V}$, $I_C = -500\ \text{mA}$	40			
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = -300\ \text{mA}$, $I_B = -30\ \text{mA}$		-0.35	-0.60	V
Base-emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = -300\ \text{mA}$, $I_B = -30\ \text{mA}$		-1.1	-1.5	V
Transition frequency	f_T	$V_{CB} = -10\ \text{V}$, $I_E = 50\ \text{mA}$, $f = 200\ \text{MHz}$		200		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$		6	15	pF

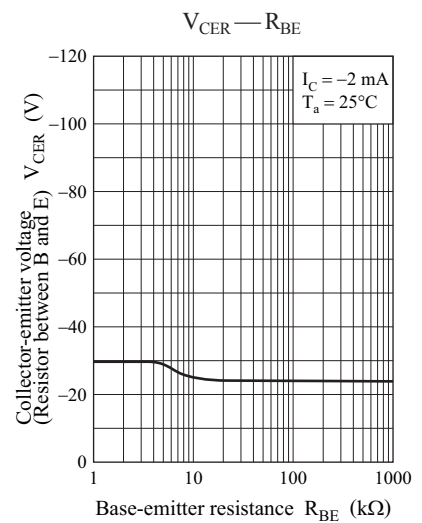
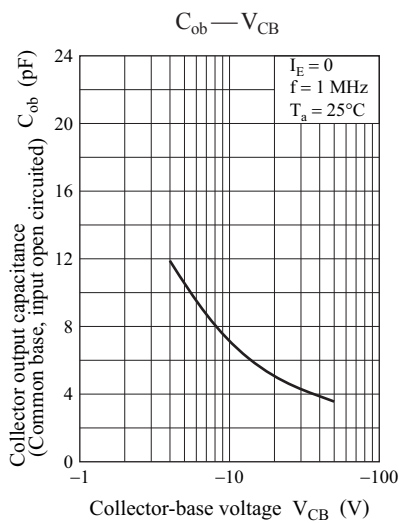
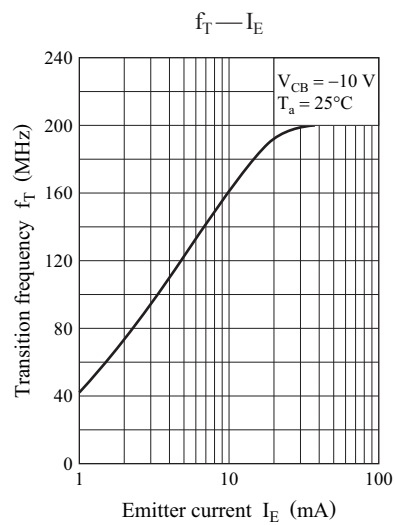
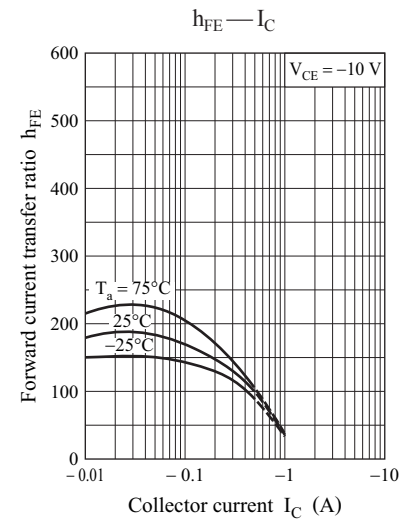
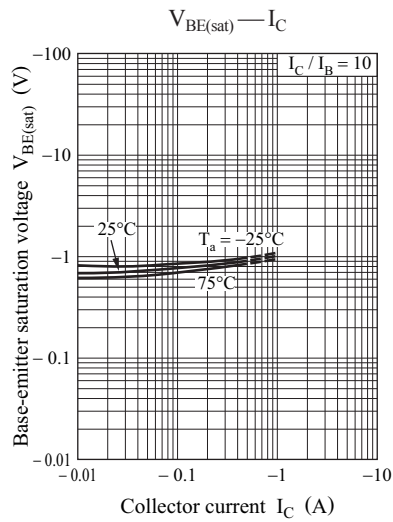
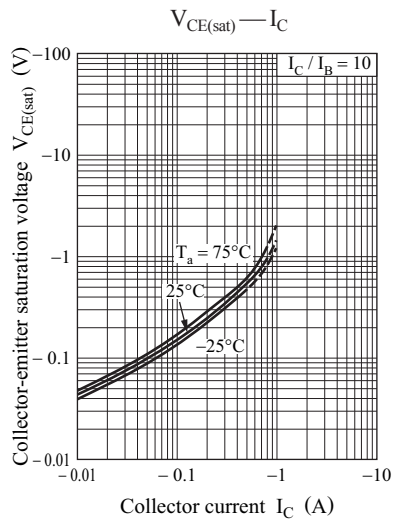
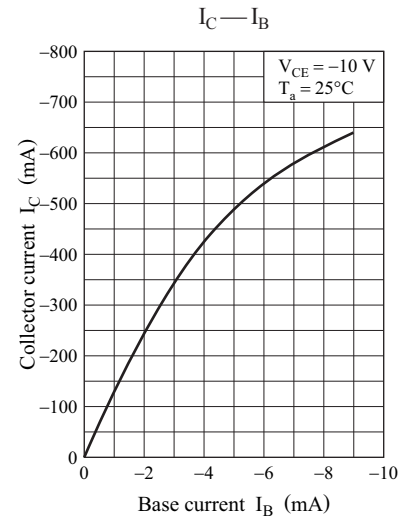
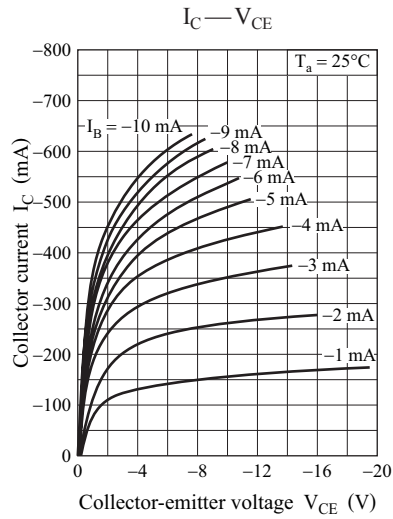
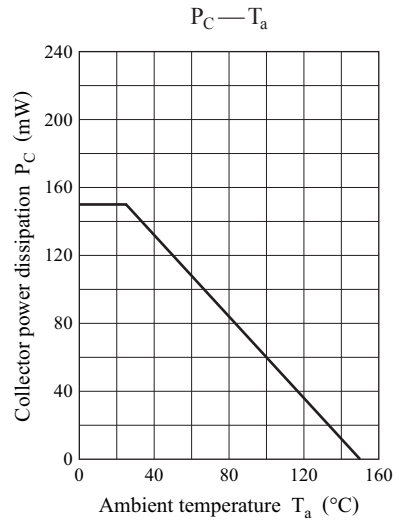
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

*2: Rank classification

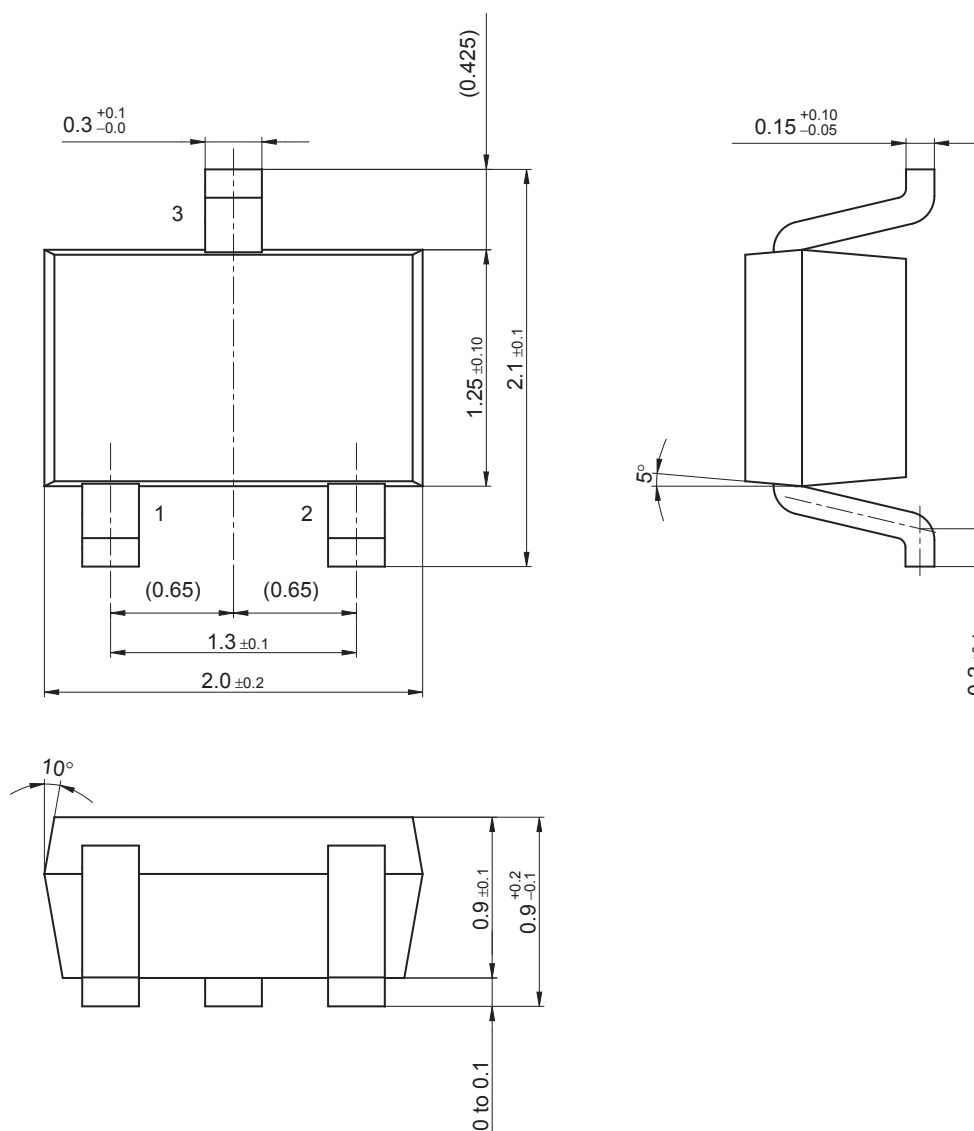
Rank	Q	R	S	No-rank
h_{FE1}	85 to 170	120 to 240	170 to 340	85 to 340
Marking symbol	CQ	CR	CS	C

Product of no-rank is not classified and have no marking symbol for rank.



SMini3-G1

Unit: mm



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