

2SB1589

Silicon PNP epitaxial planar type

For low-frequency output amplification

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Large collector power dissipation P_C
- Mini Power type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	-10	V
Collector-emitter voltage (Base open)	V_{CEO}	-10	V
Emitter-base voltage (Collector open)	V_{EBO}	-7	V
Collector current	I_C	-1.5	A
Peak collector current	I_{CP}	-2	A
Collector power dissipation *	P_C	1	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Note) *: Print circuit board: Copper foil area of 1 cm² or more, and the board thickness of 1.7 mm for the collector portion

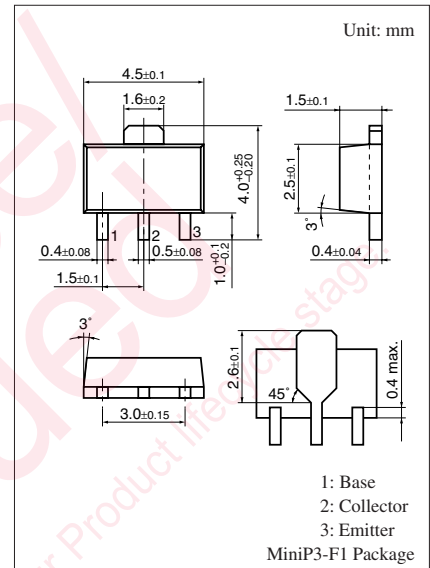
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10 \mu\text{A}$, $I_E = 0$	-10			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}	$V_{CB} = -7 \text{ V}$, $I_E = 0$			-1	μA
Forward current transfer ratio *1	h_{FE}	$V_{CE} = -1 \text{ V}$, $I_C = -400 \text{ mA}$	200		700	—
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = -1 \text{ A}$, $I_B = -25 \text{ mA}$		-0.24	-0.35	V
Transition frequency	f_T	$V_{CB} = -6 \text{ V}$, $I_E = 50 \text{ mA}$, $f = 200 \text{ MHz}$		190		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$		65		pF
Forward voltage *2	V_F	$I_F = -500 \text{ mA}$			-1.3	V

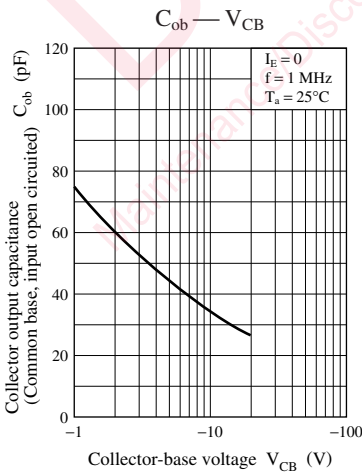
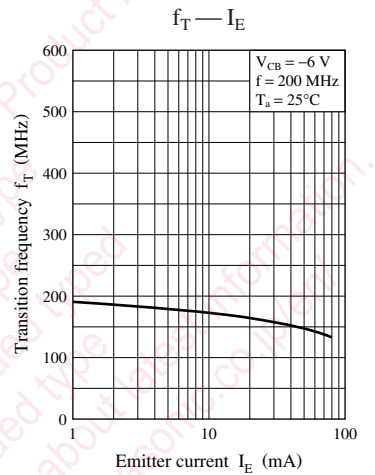
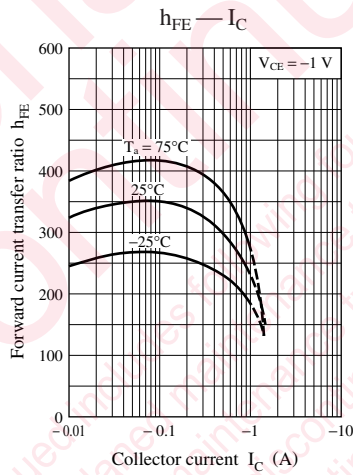
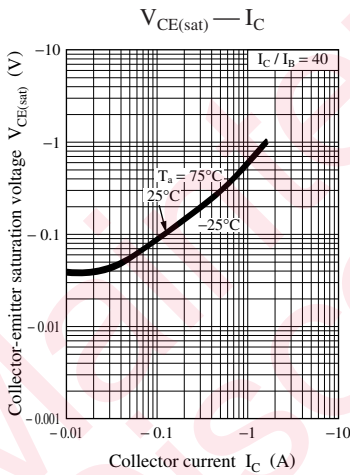
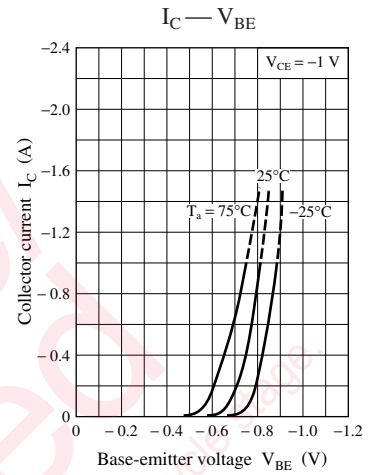
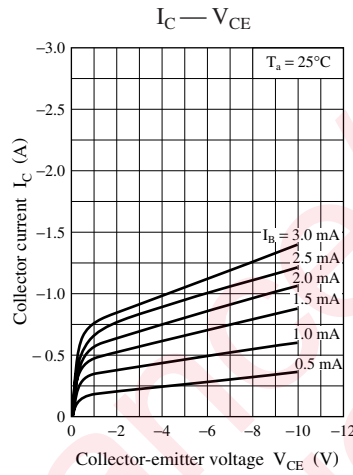
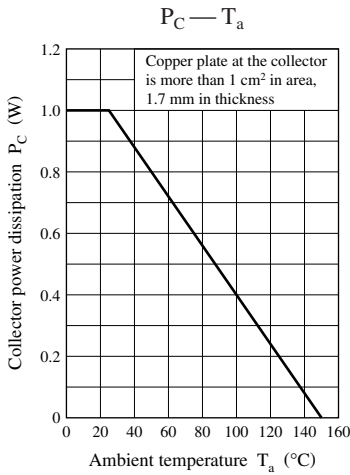
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

*2: Applicable to the built-in diode



Marking Symbol: 1U



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