

DSA5001

Silicon PNP epitaxial planar type

For general amplification

Complementary to DSC5001

DSA2001 in SMini3 type package

■ Features

- High forward current transfer ratio h_{FE} with excellent linearity
- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Halogen-free / RoHS compliant
(EU RoHS / UL-94 V-0 / MSL: Level 1 compliant)

■ Marking Symbol: A1

■ Packaging

DSA5001×0L Embossed type (Thermo-compression sealing): 3 000 pcs / reel (standard)

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	-60	V
Collector-emitter voltage (Base open)	V_{CEO}	-50	V
Emitter-base voltage (Collector open)	V_{EBO}	-7	V
Collector current	I_C	-100	mA
Peak collector current	I_{CP}	-200	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Operating ambient temperature	T_{opr}	-40 to +85	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

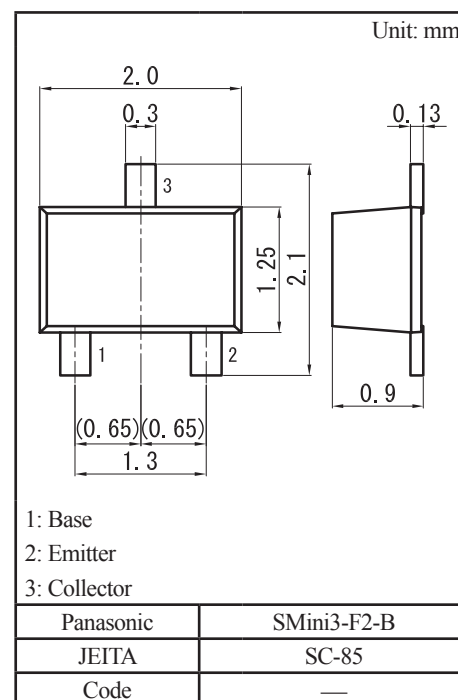
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10\ \mu\text{A}$, $I_E = 0$	-60			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -2\ \text{mA}$, $I_B = 0$	-50			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10\ \mu\text{A}$, $I_C = 0$	-7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -20\ \text{V}$, $I_E = 0$			-0.1	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -10\ \text{V}$, $I_B = 0$			-100	μA
Forward current transfer ratio *1	h_{FE}	$V_{CE} = -10\ \text{V}$, $I_C = -2\ \text{mA}$	210		460	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\ \text{mA}$, $I_B = -10\ \text{mA}$		-0.2	-0.5	V
Transition frequency	f_T	$V_{CE} = -10\ \text{V}$, $I_C = -2\ \text{mA}$		150		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$		2		pF

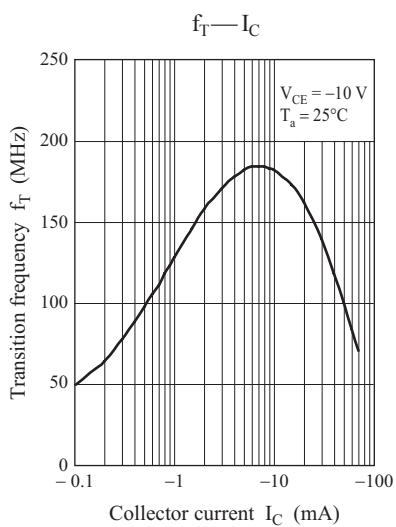
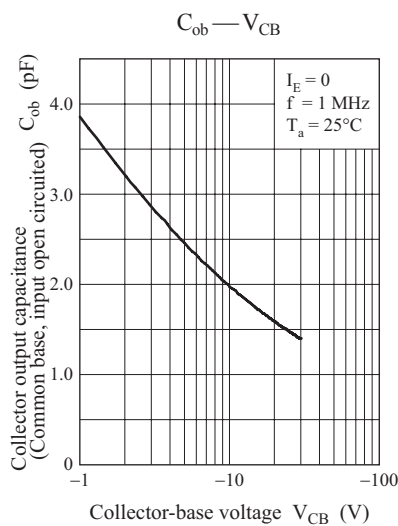
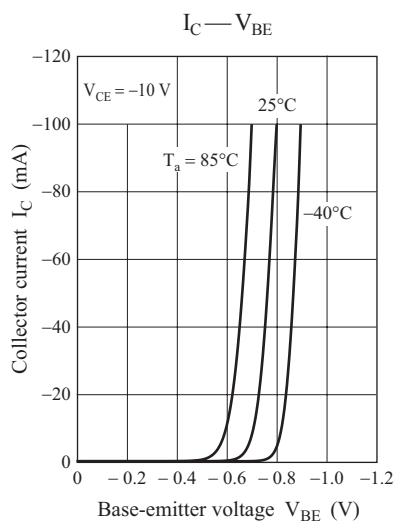
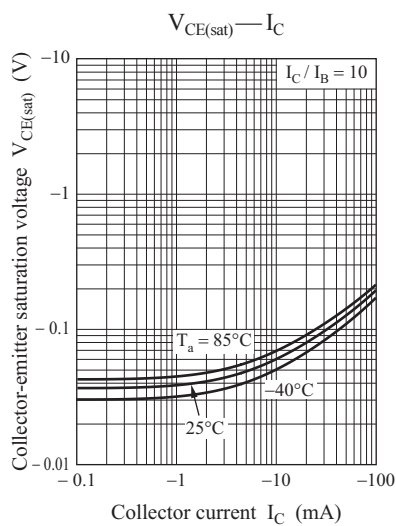
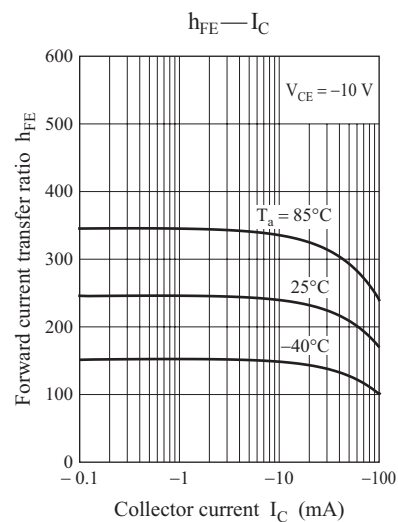
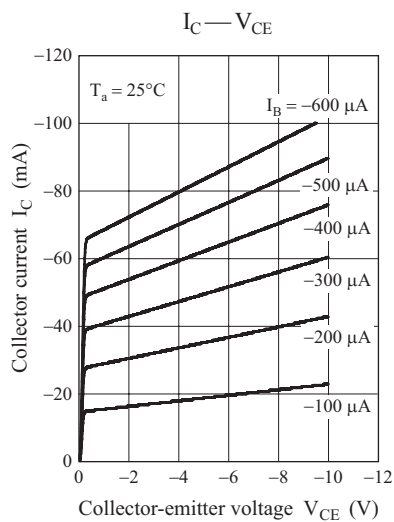
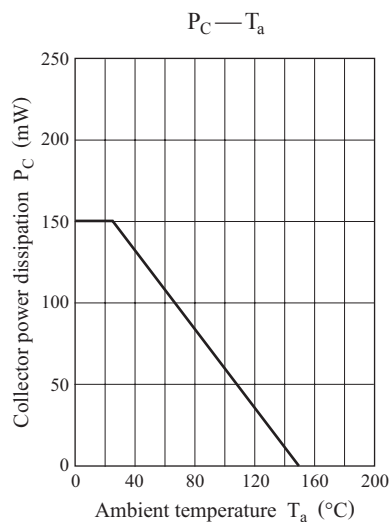
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Rank classification

Code	R	S	0
Rank	R	S	No-rank
h_{FE}	210 to 340	290 to 460	210 to 460
Marking Symbol	A1R	A1S	A1

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





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