

# DSA9402

## Silicon PNP epitaxial planar type

For low frequency amplification

### ■ 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: B2

### ■ Packaging

DSA940200L Embossed type (Thermo-compression sealing): 3 000 pcs / reel (standard)

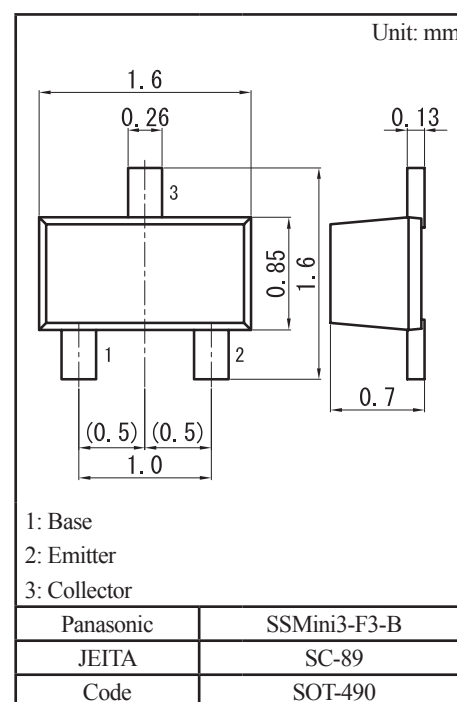
### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

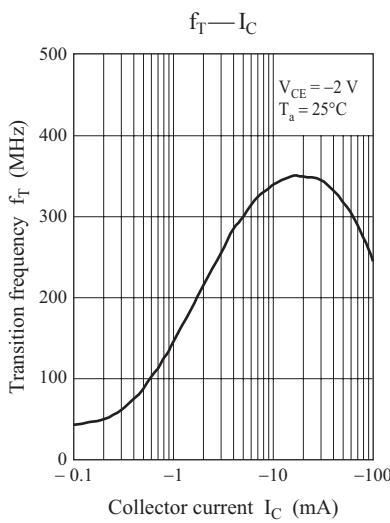
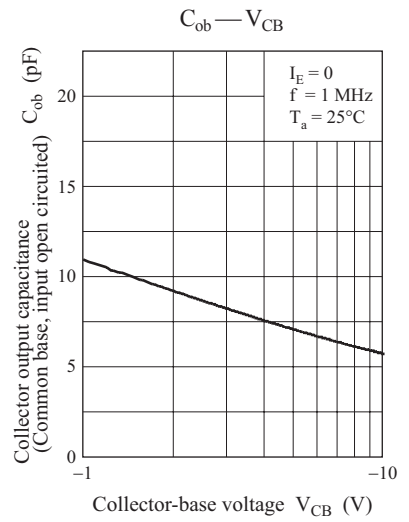
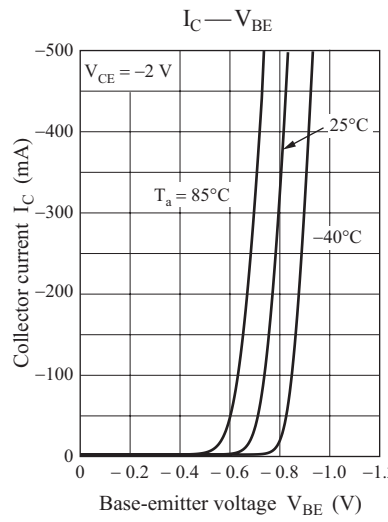
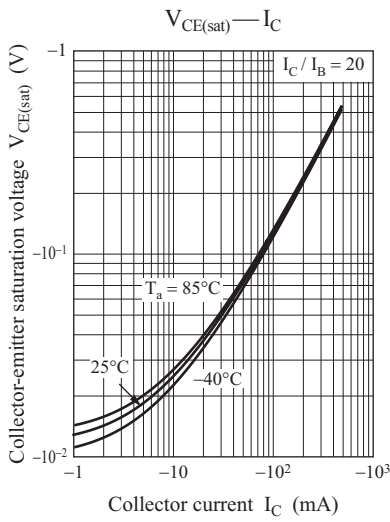
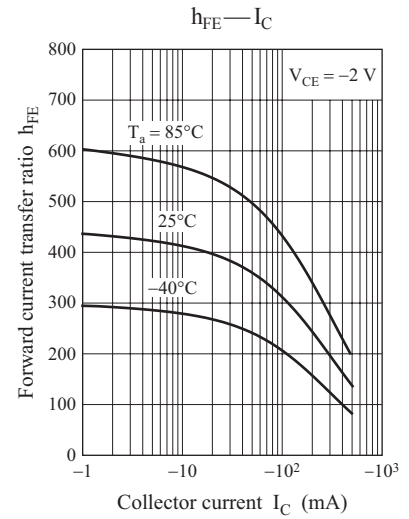
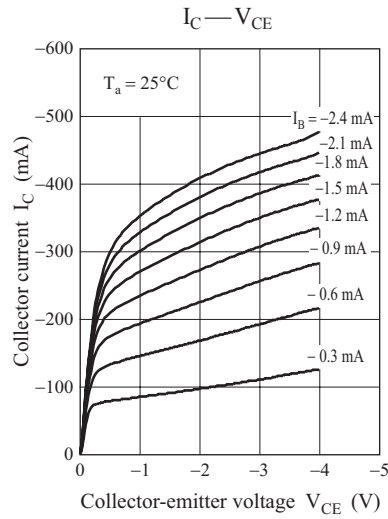
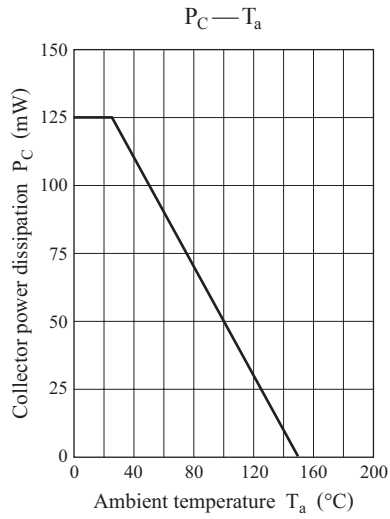
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	-15	V
Collector-emitter voltage (Base open)	$V_{CEO}$	-12	V
Emitter-base voltage (Collector open)	$V_{EBO}$	-5	V
Collector current	$I_C$	-500	mA
Peak collector current	$I_{CP}$	-1	A
Collector power dissipation	$P_C$	125	mW
Junction 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)	$V_{CBO}$	$I_C = -10 \mu\text{A}, I_E = 0$	-15			V
Collector-emitter voltage (Base open)	$V_{CEO}$	$I_C = -1 \text{ mA}, I_B = 0$	-12			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)	$I_{CBO}$	$V_{CB} = -10 \text{ V}, I_E = 0$			-0.1	$\mu\text{A}$
Forward current transfer ratio	$h_{FE}$	$V_{CE} = -2 \text{ V}, I_C = -10 \text{ mA}$	270		680	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -200 \text{ mA}, I_B = -10 \text{ mA}$			-250	mV
Transition frequency	$f_T$	$V_{CE} = -2 \text{ V}, I_C = -10 \text{ mA}$		300		MHz
Collector output capacitance (Common base, input open circuited)	$C_{ob}$	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		4.0		pF

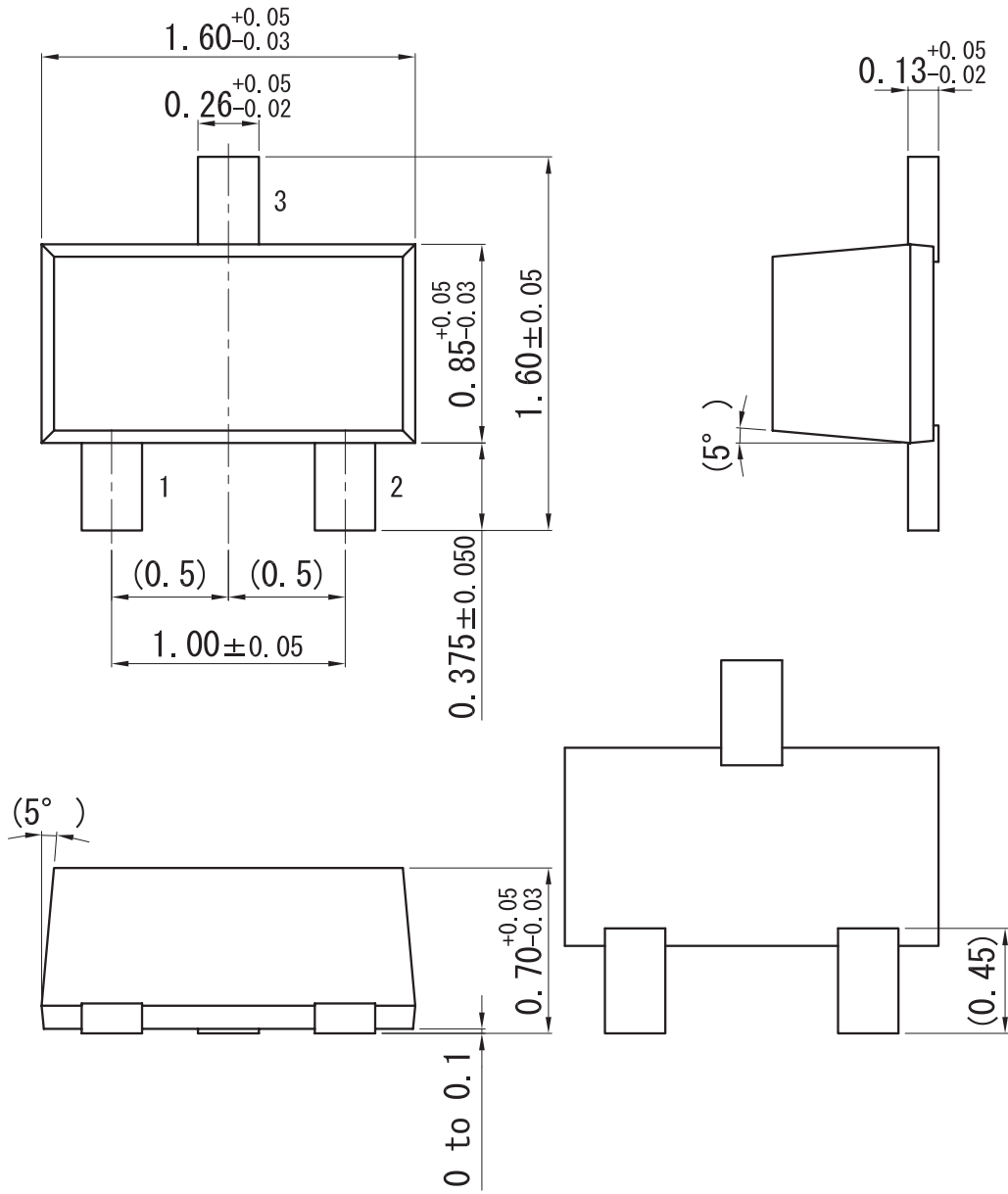
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.



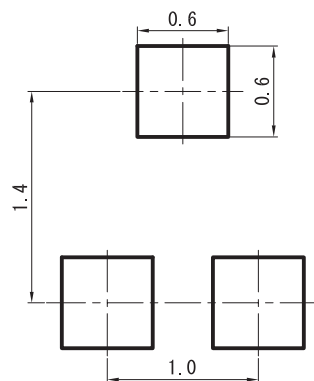


SSMini3-F3-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)





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