# DSA9402

### Silicon PNP epitaxial planar type

#### For low frequency amplification

#### Features

- $\bullet$  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)

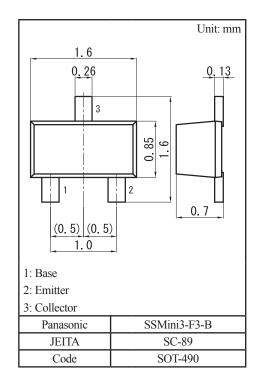
#### Marking Symbol: B2

#### Packaging

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

Absolute Maximum Ratings $T_a = 25$ C								
Parameter	Symbol	Rating	Unit					
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	-15	V					
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	-12	V					
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	-5	V					
Collector current	I <sub>C</sub>	-500	mA					
Peak collector current	I <sub>CP</sub>	-1	А					
Collector power dissipation	P <sub>C</sub>	125	mW					
Junction temperature	Tj	150	°C					
Operating ambient temperature	T <sub>opr</sub>	-40 to +85	°C					
Storage temperature	T <sub>stg</sub>	-55 to +150	°C					

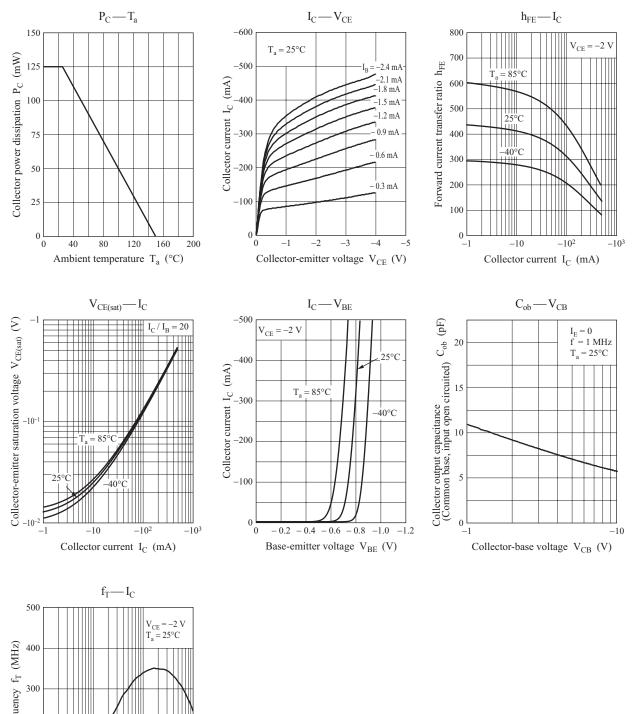


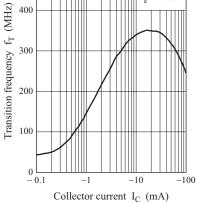


#### Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_{\rm C} = -10 \ \mu {\rm A}, I_{\rm E} = 0$	-15			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{\rm C} = -1  {\rm mA},  I_{\rm B} = 0$	-12			V
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	$I_{\rm E} = -10 \ \mu A, I_{\rm C} = 0$	-5			V
Collector-base cutoff current (Emitter open)	I <sub>CBO</sub>	$V_{CB} = -10 \text{ V}, I_E = 0$			- 0.1	μΑ
Forward current transfer ratio	h <sub>FE</sub>	$V_{CE} = -2 V, I_C = -10 mA$	270		680	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{\rm C} = -200 \text{ mA}, I_{\rm B} = -10 \text{ mA}$			-250	mV
Transition frequency	f <sub>T</sub>	$V_{CE} = -2 V, I_C = -10 mA$		300		MHz
Collector output capacitance (Common base, input open circuited)	C <sub>ob</sub>	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		4.0		pF

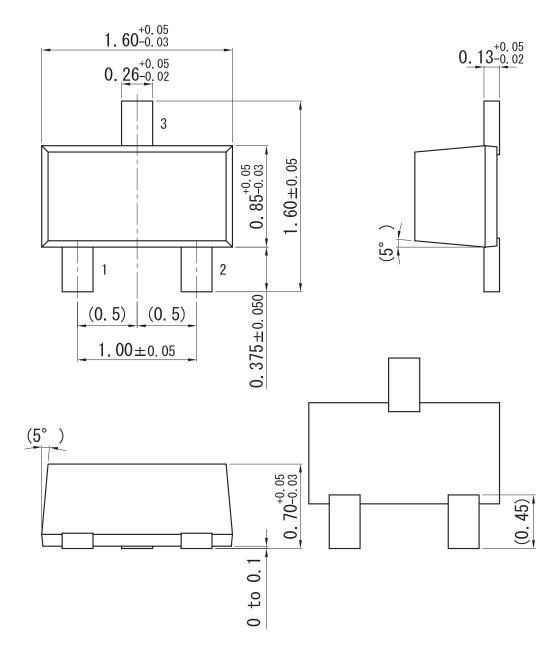
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.



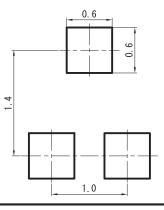


### SSMini3-F3-B

Unit: mm



Land Pattern (Reference) (Unit: mm)



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