

DSA2401

Silicon PNP epitaxial planar type

For low frequency amplification

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Halogen-free / RoHS compliant
(EU RoHS / UL-94 V-0 / MSL: Level 1 compliant)

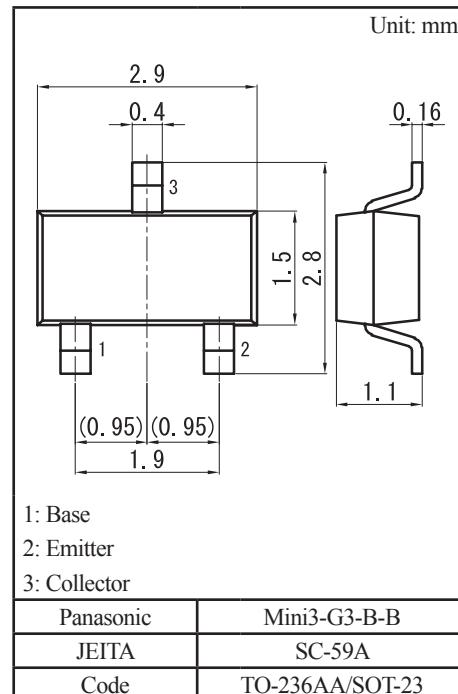
■ Marking Symbol: B1

■ Packaging

DSA2401x0L 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}	-10	V
Emitter-base voltage (Collector open)	V_{EBO}	-7	V
Collector current	I_C	-0.5	A
Peak collector current	I_{CP}	-1	A
Collector power dissipation	P_C	200	mW
Junction temperature	T_j	150	°C
Operating ambient temperature	T_{opr}	-40 to +85	°C
Storage temperature	T_{stg}	-55 to +150	°C



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

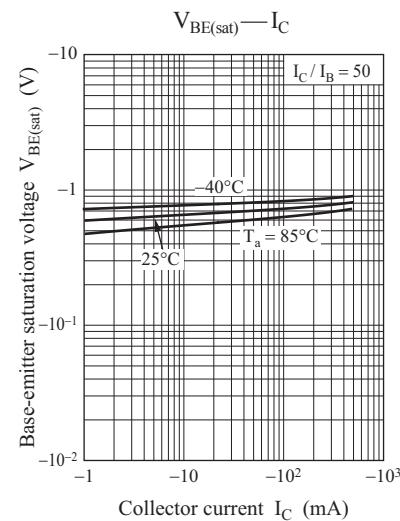
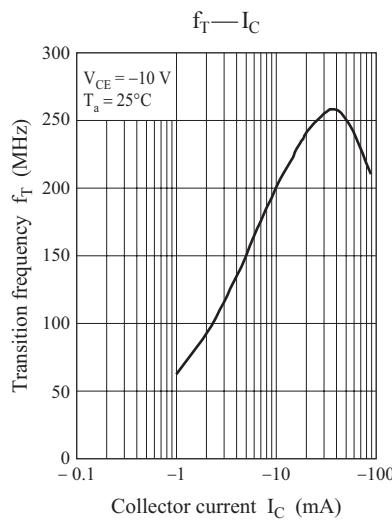
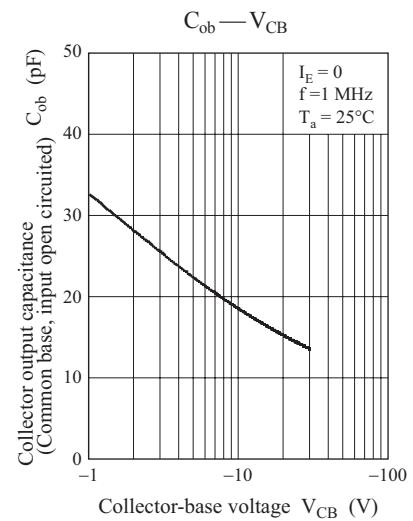
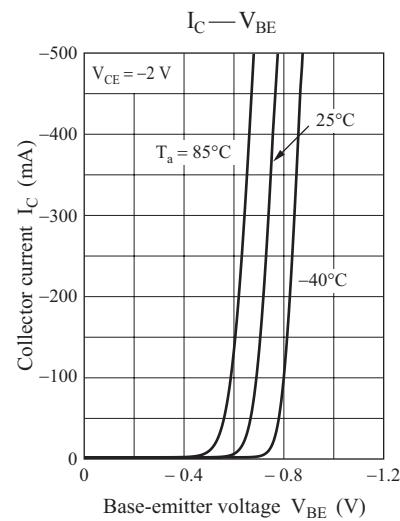
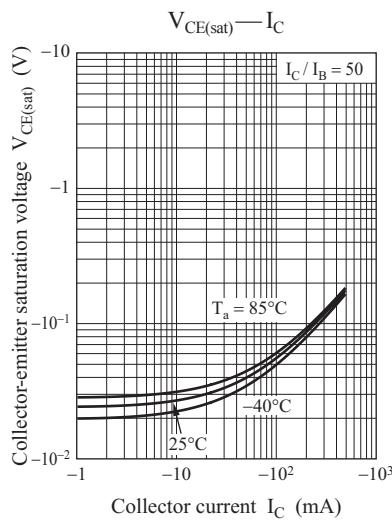
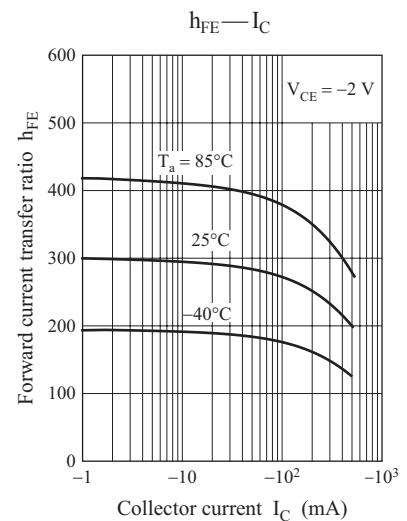
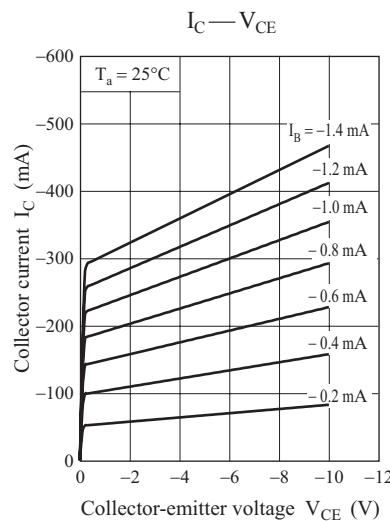
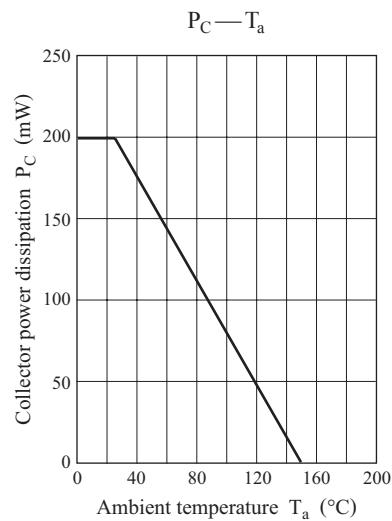
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10 \mu\text{A}, I_E = 0$	-15			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -1 \text{ mA}, I_B = 0$	-10			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10 \mu\text{A}, I_C = 0$	-7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -10 \text{ V}, I_E = 0$			-100	nA
Forward current transfer ratio ^{*1}	h_{FE1} ^{*2}	$V_{CE} = -2 \text{ V}, I_C = -0.5 \text{ A}$	130		350	—
	h_{FE2}	$V_{CE} = -2 \text{ V}, I_C = -1 \text{ A}$	60			—
Collector-emitter saturation voltage ^{*1}	$V_{CE(sat)}$	$I_C = -0.4 \text{ A}, I_B = -8 \text{ mA}$		-0.15	-0.30	V
Base-emitter saturation voltage ^{*1}	$V_{BE(sat)}$	$I_C = -0.4 \text{ A}, I_B = -8 \text{ mA}$		-0.8	-1.2	V
Transition frequency	f_T	$V_{CE} = -10 \text{ V}, I_C = -50 \text{ mA}$		250		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		18		pF

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

2. *1: Pulse measurement

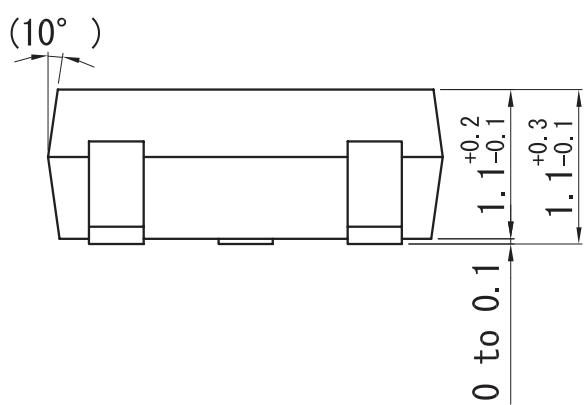
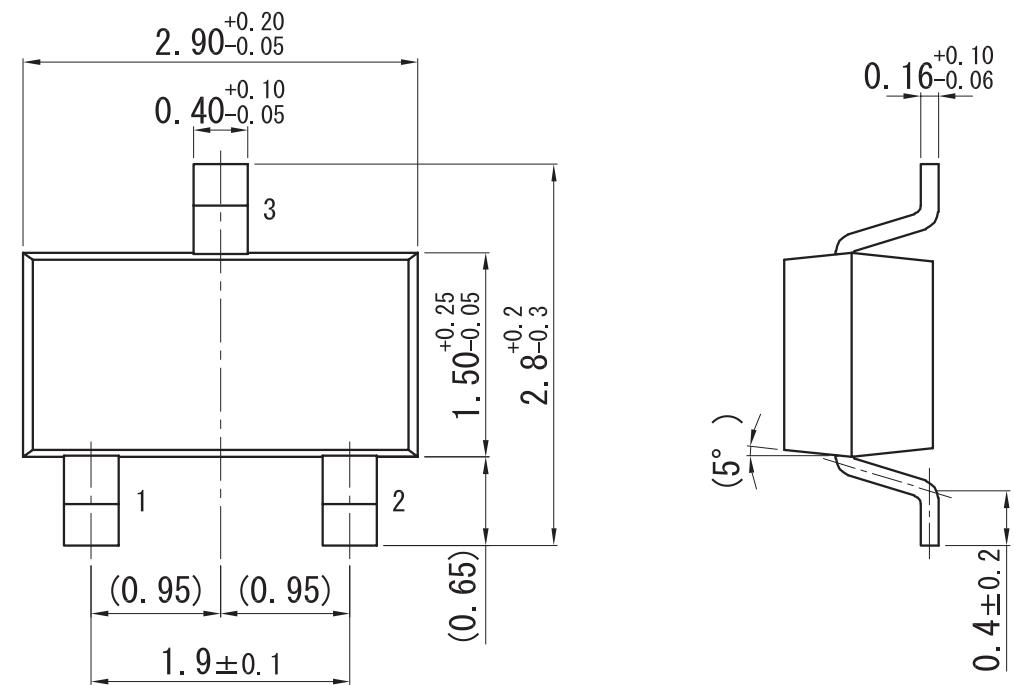
*2: Rank classification

Code	R	S
Rank	R	S
h_{FE1}	130 to 220	180 to 350
Marking Symbol	B1R	B1S

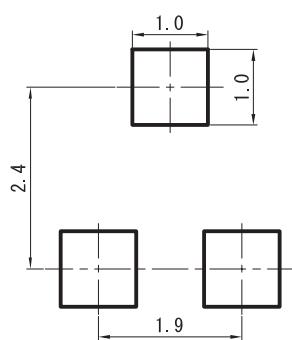


Mini3-G3-B-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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