

DRA9113Z (Tentative)

Silicon PNP epitaxial planar type

For digital circuits

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

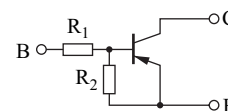
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	-50	V
Collector-emitter voltage (Base open)	V_{CEO}	-50	V
Collector current	I_{C}	-100	mA
Total power dissipation	P_{T}	125	mW
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

■ Package

- Code
SSMini3-F3-B
- Pin Name
1: Base
2: Emitter
3: Collector

■ Marking Symbol: L1

■ Internal Connection



Resistance value	R_1	1	$\text{k}\Omega$
	R_2	10	$\text{k}\Omega$

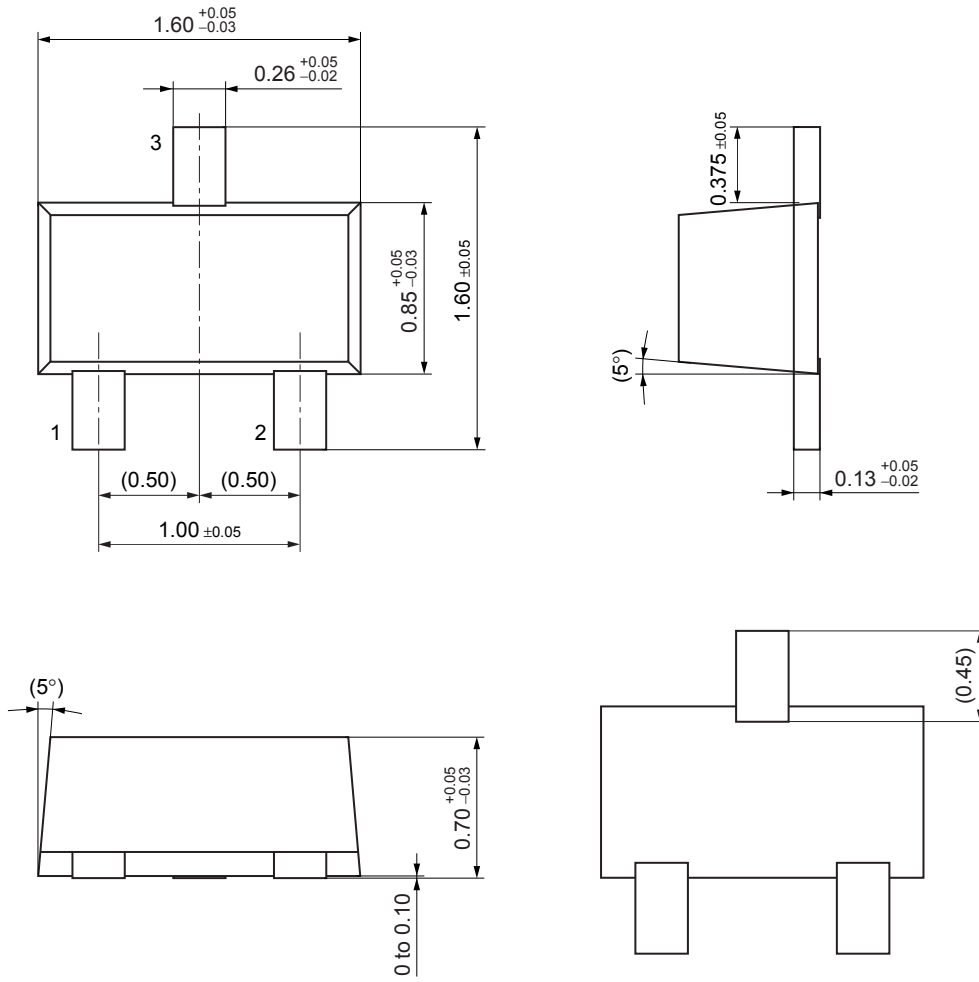
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_{\text{C}} = -10 \mu\text{A}, I_{\text{E}} = 0$	-50			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_{\text{C}} = -2 \text{mA}, I_{\text{B}} = 0$	-50			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{\text{CB}} = -50 \text{V}, I_{\text{E}} = 0$			-0.1	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{\text{CE}} = -50 \text{V}, I_{\text{B}} = 0$			-0.5	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{\text{EB}} = -6 \text{V}, I_{\text{C}} = 0$			-1.5	mA
Forward current transfer ratio	h_{FE}	$V_{\text{CE}} = -10 \text{V}, I_{\text{C}} = -5 \text{mA}$	30			—
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = -10 \text{mA}, I_{\text{B}} = -0.5 \text{mA}$			-0.25	V
Output voltage high-level	V_{OH}	$V_{\text{CC}} = -5 \text{V}, V_{\text{B}} = -0.5 \text{V}, R_{\text{L}} = 1 \text{k}\Omega$	-4.9			V
Output voltage low-level	V_{OL}	$V_{\text{CC}} = -5 \text{V}, V_{\text{B}} = -2.5 \text{V}, R_{\text{L}} = 1 \text{k}\Omega$			-0.2	V
Input resistance	R_1		-30%	1	+30%	$\text{k}\Omega$
Resistance ratio	R_1 / R_2		0.08	0.10	0.12	—

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

SSMini3-F3-B

Unit: mm



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