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Doc No. TT4-EA-12300

Revision. 3

Transistors with Built-in Resistor

DRA2523E0L

Panasonic

DRA2523E0L

Silicon PNP epitaxial planar type

For digital circuits
Complementary to DRC2523E

■ Features

- Low collector-emitter saturation voltage Vce(sat)
- Halogen-free / RoHS compliant (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

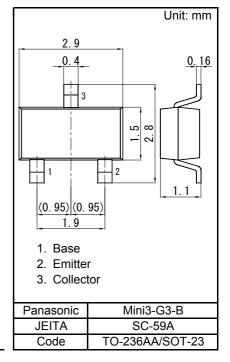
■ Marking Symbol: SH

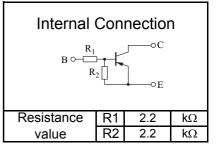
■ Packaging

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

■ Absolute Maximum Ratings Ta = 25 °C

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	VCBO	-50	V
Collector-emitter voltage (Base open)	VCEO	-50	V
Collector current	IC	-500	mA
Total power dissipation	PT	200	mW
Junction temperature	Tj	150	°C
Operating ambient temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-55 to +150	°C





■ Electrical Characteristics Ta = 25 °C ± 3 °C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	VCBO	IC = -10 μA, IE = 0	-50			V
Collector-emitter voltage (Base open)	VCEO	IC = -2 mA, IB = 0	-50			V
Collector-base cutoff current (Emitter open)	ICBO	VCB = -50 V, IE = 0			-1	μΑ
Collector-emitter cutoff current (Base open)	ICEO	VCE = -50 V, IB = 0			-1	μΑ
Emitter-base cutoff current (Collector open)	IEBO	VEB = -6 V, IC = 0			-5	mA
Forward current transfer ratio	hFE	VCE = -10 V, IC = -100 mA	40			-
Collector-emitter saturation voltage	VCE(sat)	IC = -100 mA, IB = -5 mA			-0.25	V
Input voltage	Vi(on)	VCE = -0.2 V, IC = -50 mA	-2.6			V
	Vi(off)	VCE = -5 V, IC = -100 μA			-0.7	V
Input resistance	R1		-30%	2.2	+30%	kΩ
Resistance ratio	R1/R2		0.8	1.0	1.2	-

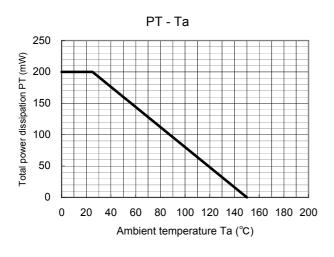
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

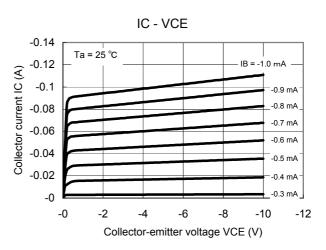
Established: 2010-02-04 Revised: 2014-01-23 **Panasonic**

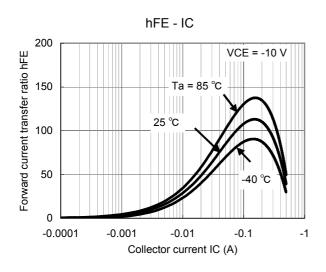
Transistors with Built-in Resistor

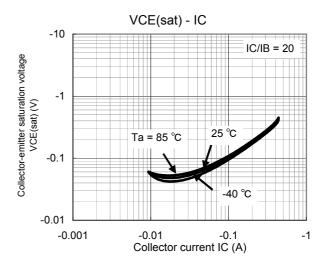
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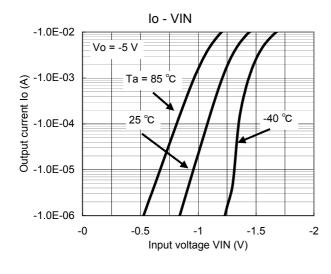
Technical Data (reference)

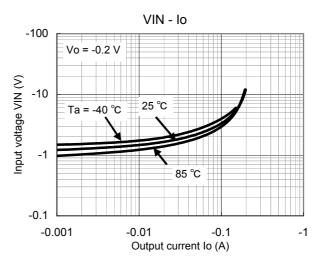












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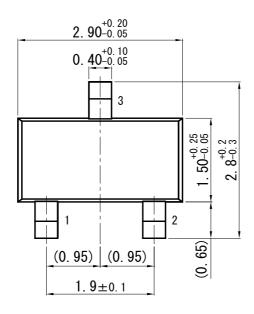
Transistors with Built-in Resistor

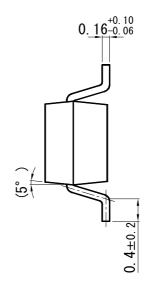
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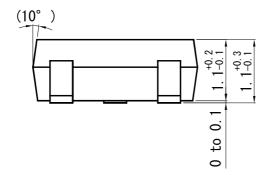
Mini3-G3-B

Panasonic

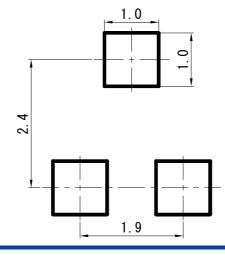
Unit: mm







■ Land Pattern (Reference) (Unit: mm)



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