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Transistors with Built-in Resistor

#### DRA9123J0L

## Panasonic DRA9123J0L

### Silicon PNP epitaxial planar type

For digital circuits Complementary to DRC9123J DRA5123J in SSMini3 type package

#### ■ Features

- Low collector-emitter saturation voltage Vce(sat)
- Halogen-free / RoHS compliant (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)
- Marking Symbol: L4

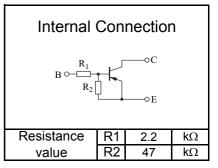
#### ■ Packaging

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	-100	mA
Total power dissipation	PT	125	mW
Junction temperature	Tj	150	°C
Operating ambient temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-55 to +150	°C

### Unit: mm 1.6 0. 26 0, 13 85 0. 7 (0.5)(0.5)1.0 1. Base 2. Emitter 3. Collector SSMini3-F3-B Panasonic JEITA SC-89 Code SOT-490



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

Established: 2009-10-16

Revised

: 2014-02-27

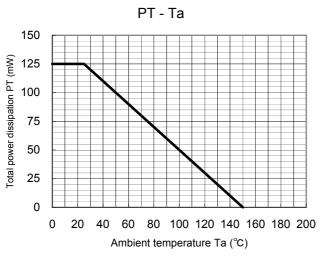
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	VCBO	IC = -10 μA, IE = 0	-50			V
Collector-emitter voltage (Base open)	VCEO	IC = -2 mA, IB = 0	-50			V
Collector-base cutoff current (Emitter open)	ICBO	VCB = -50 V, IE = 0			-0.1	μΑ
Collector-emitter cutoff current (Base open)	ICEO	VCE = -50 V, IB = 0			-0.5	μΑ
Emitter-base cutoff current (Collector open)	IEBO	VEB = -6 V, IC = 0			-0.2	mA
Forward current transfer ratio	hFE	VCE = -10 V, IC = -5 mA	80			-
Collector-emitter saturation voltage	VCE(sat)	IC = -10 mA, IB = -0.5 mA			-0.25	V
Input voltage	Vi(on)	VCE = -0.2 V, IC = -5 mA	-1.2			V
	Vi(off)	VCE = -5 V, IC = -100 μA			-0.4	V
Input resistance	R1		-30%	2.2	+30%	kΩ
Resistance ratio	R1/R2		0.037	0.047	0.057	-

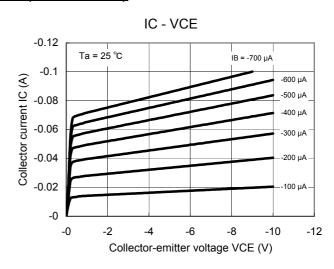
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

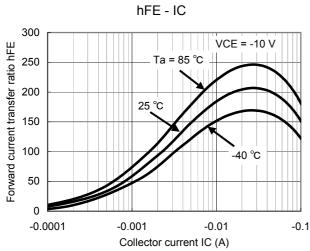
#### DRA9123J0L

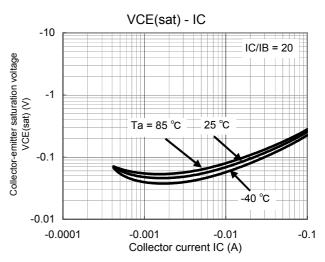
## **Panasonic**

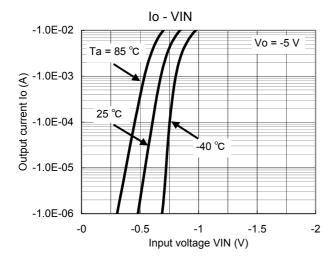
### Technical Data (reference)

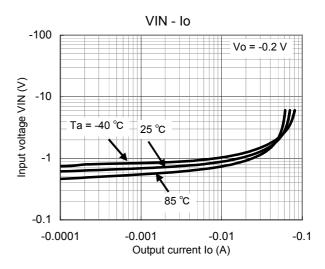












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Established: 2009-10-16 Revised: 2014-02-27

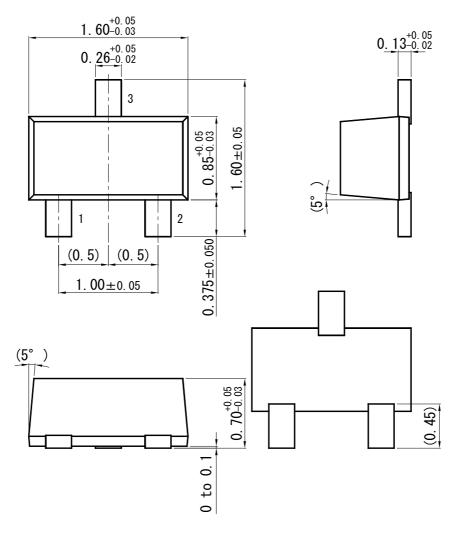
Transistors with Built-in Resistor

DRA9123J0L

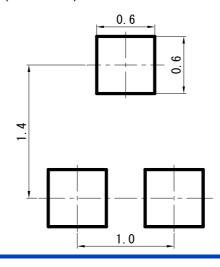
## SSMini3-F3-B

**Panasonic** 

Unit: mm



#### ■ Land Pattern (Reference) (Unit: mm)



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Established: 2009-10-16 Revised: 2014-02-27

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