Revision. 2

Transistors with Built-in Resistor

### DRA2124T0L

# DRA2124T0L

**Panasonic** 

## Silicon PNP epitaxial planar type

For digital circuits
Complementary to DRC2124T

#### ■ Features

- · High forward current transfer ratio hFE with excellent linearity
- · Low collector-emitter saturation voltage Vce(sat)
- Halogen-free / RoHS compliant (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

■ Marking Symbol: LH

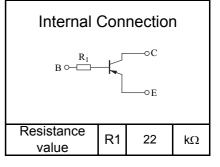
#### ■ Packaging

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	200	mW
Junction temperature	Tj	150	°C
Operating ambient temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-55 to +150	°C

### Unit: mm 2.9 0.4 0.16 3 2 (0. 95) (0. 95) 1.9 1. Base 2. Emitter 3. Collector Panasonic Mini3-G3-B JEITA SC-59A TO-236AA/SOT-23 Code



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

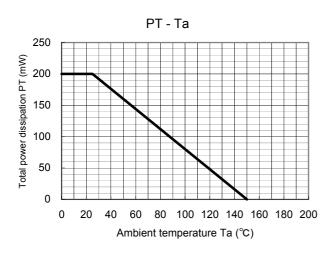
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	VCBO	$IC = -10 \mu A, IE = 0$	-50			V
Collector-emitter voltage (Base open)	VCEO	IC = -2 mA, IB = 0	-50			V
Collector-base cutoff current (Emitter open)	ICBO	VCB = -50 V, IE = 0			-0.1	μA
Collector-emitter cutoff current (Base open)	ICEO	VCE = -50 V, IB = 0			-0.5	μA
Emitter-base cutoff current (Collector open)	IEBO	VEB = -6 V, IC = 0			-0.01	mA
Forward current transfer ratio	hFE	VCE = -10 V, IC = -5 mA	160		460	-
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	-1.8			V
	Vi(off)	VCE = -5 V, IC = -100 μA			-0.4	V
Input resistance	R1		-30%	22	+30%	kΩ

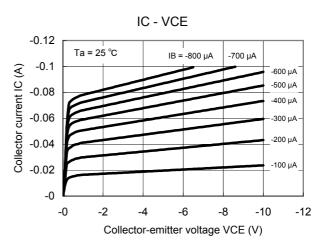
 $Note) \, 1. \quad \text{Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.}$ 

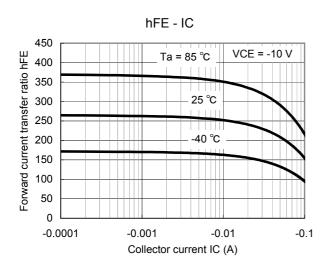
Established: 2009-10-29 Revised: 2014-01-22

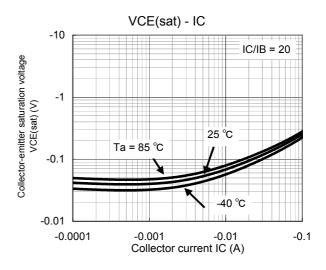
# **Panasonic**

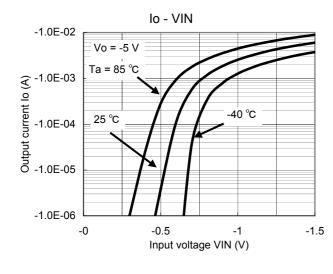
## Technical Data (reference)

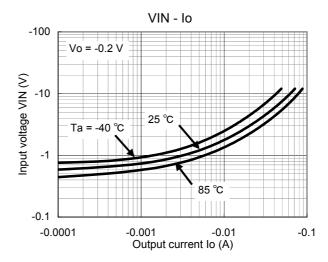












Established: 2009-10-29 Revised: 2014-01-22

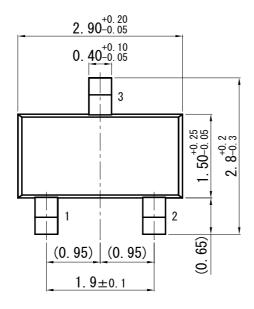
Transistors with Built-in Resistor

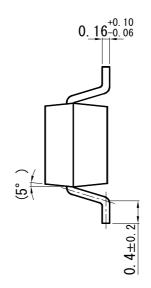
## DRA2124T0L

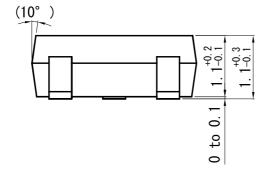
# Mini3-G3-B

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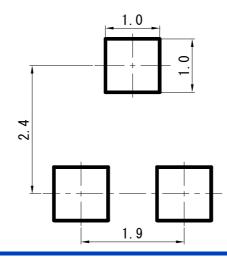
Unit: mm







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



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Established: 2009-10-29 Revised: 2014-01-22

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