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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China







Transistors with Built-in Resistor

#### DRA5114T0L

# Panasonic DRA5114T0L

## Silicon PNP epitaxial planar type

For digital circuits
Complementary to DRC5114T
DRA2114T in SMini3 type package

#### ■ 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: LD

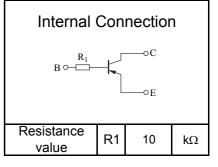
#### ■ Packaging

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

### Unit: mm 2.0 0.3 0. 13 25 0.9 (0. 65)(0. 65) 1.3 1. Base 2. Emitter 3. Collector Panasonic SMini3-F2-B JEITA SC-85 Code



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

Established: 2009-10-14

: 2014-02-21

Revised

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	-1.2			V
	Vi(off)	VCE = -5 V, IC = -100 μA			-0.4	V
Input resistance	R1		-30%	10	+30%	kΩ

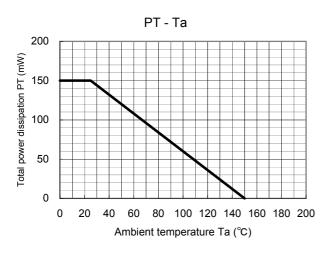
 $Note) \, 1. \quad \text{Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.}$ 

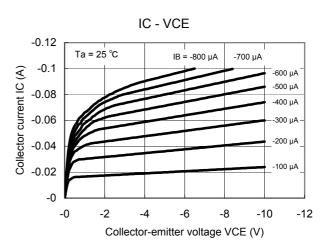
Transistors with Built-in Resistor

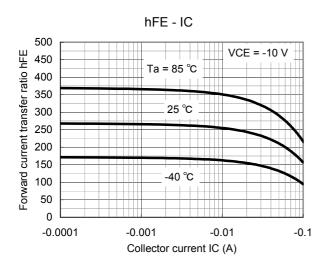
#### DRA5114T0L

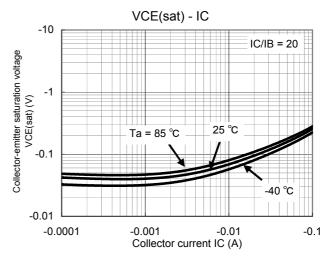
# **Panasonic**

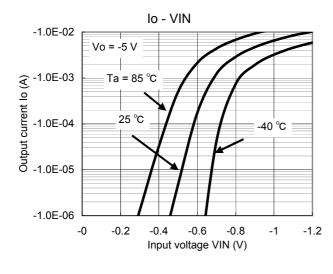
## Technical Data (reference)

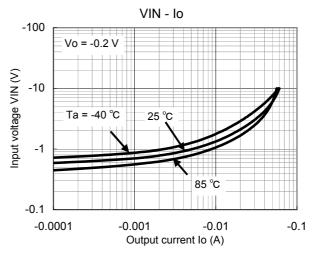










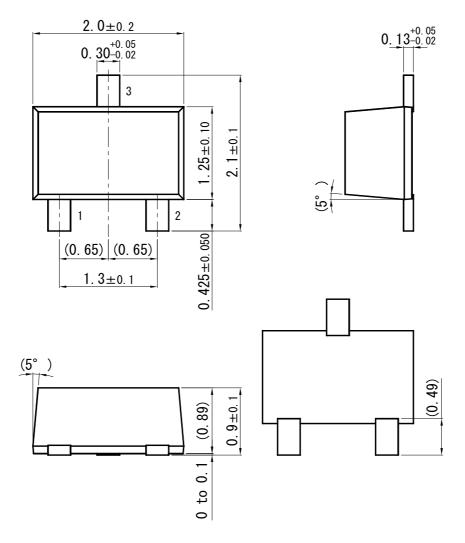


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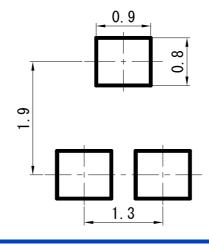
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SMini3-F2-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



Established: 2009-10-14 Revised: 2014-02-21

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