# Panasonic

Transistors with Built-in Resistor DRA2114T0L

### DRA2114T0L Silicon PNP epitaxial planar type

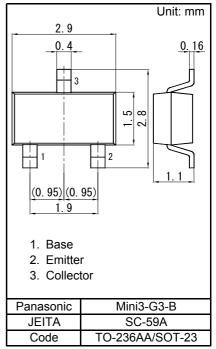
For digital circuits Complementary to DRC2114T

#### 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)



Internal Connection							
οE							
Resistance value	R1	10	kΩ				

#### ■ Absolute Maximum Ratings Ta = 25 °C

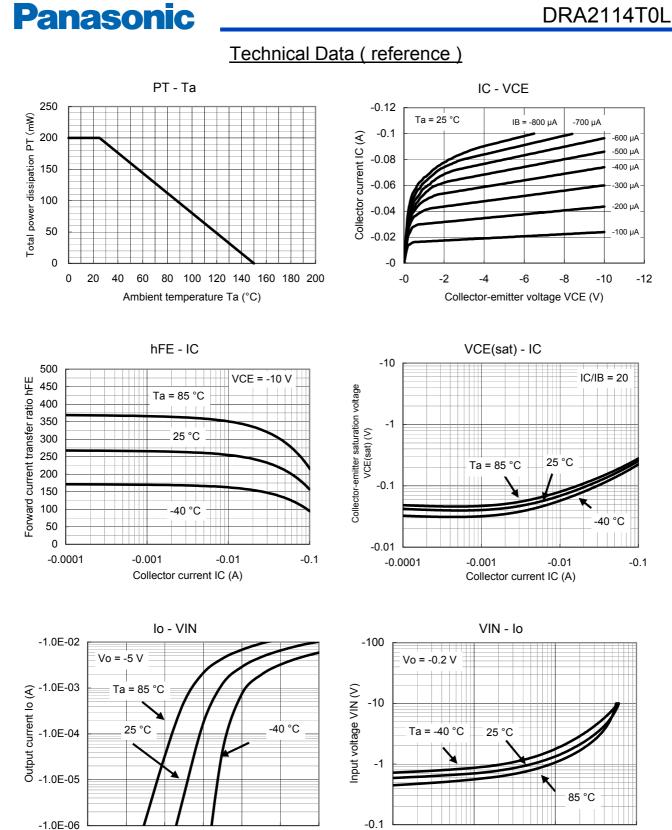
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	VCBO	-50	V
Collector-emitter voltage (Base open)	VCEO	-50	V
Collector current	IC	-100	mA
Total power dissipation	PT	200	mW
Junction temperature	Tj	150	°C
Operating ambient temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-55 to +150	С°

Electrical Characteristics	5 Ta = 25 °C ± 3 °C
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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	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. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

Transistors with Built-in Resistor **DRA2114T0L** 



-0.0001

-0.001

Output current Io (A)

-0.1

-0.01

-0

-0.2

-0.4

-0.6

Input voltage VIN (V)

-0.8

-1

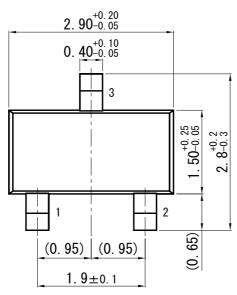
-1.2

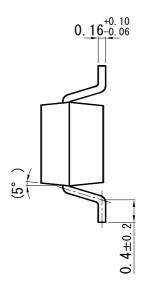


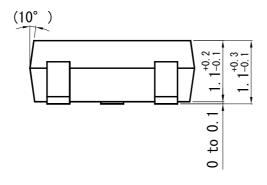
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Mini3-G3-B

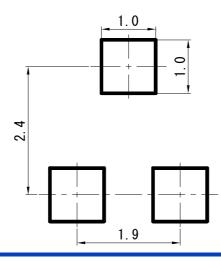








Land Pattern (Reference) (Unit: mm)



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