



# DRAF124X0L

Silicon PNP epitaxial planar type

For digital circuits

Complementary to DRCF124X

DRA3124X in ML3 type package

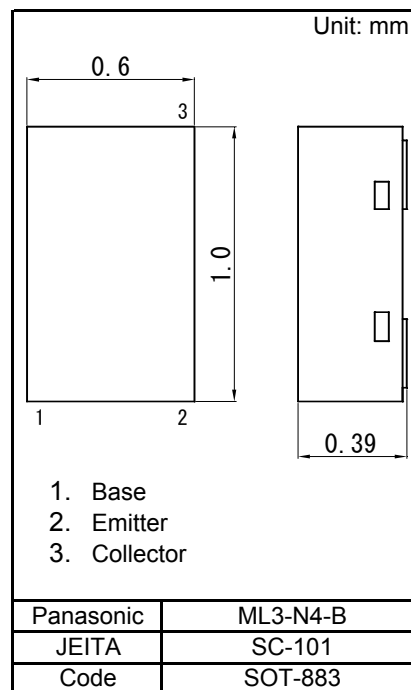
### ■ Features

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

### ■ Marking Symbol: LF

### ■ Packaging

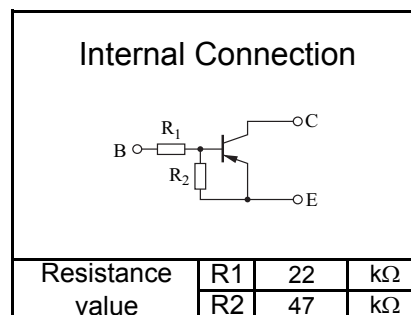
Embossed type (Thermo-compression sealing) : 10 000 pcs / reel (standard)



### ■ 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 <sup>*1</sup>	PT	100	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

Note) \*1: Copper plate at the collector is 5.0 mm<sup>2</sup> on substrate at 10 x 12 x 0.8t mm.

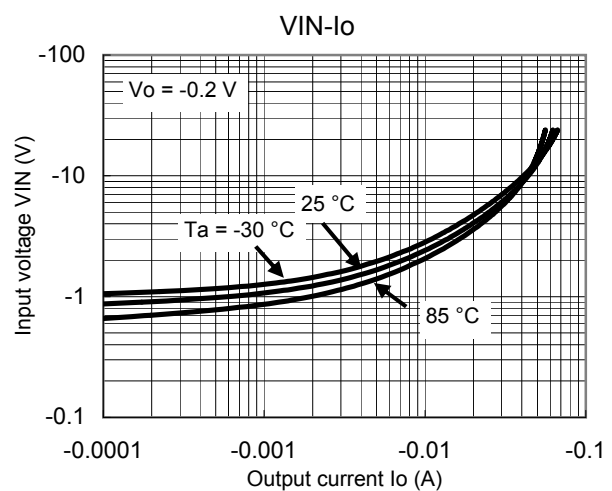
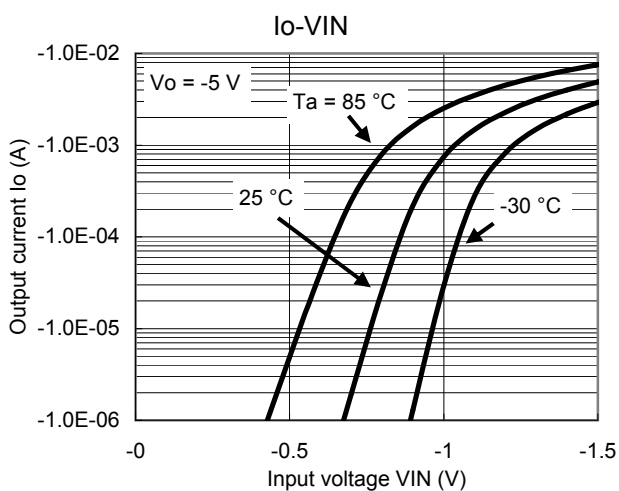
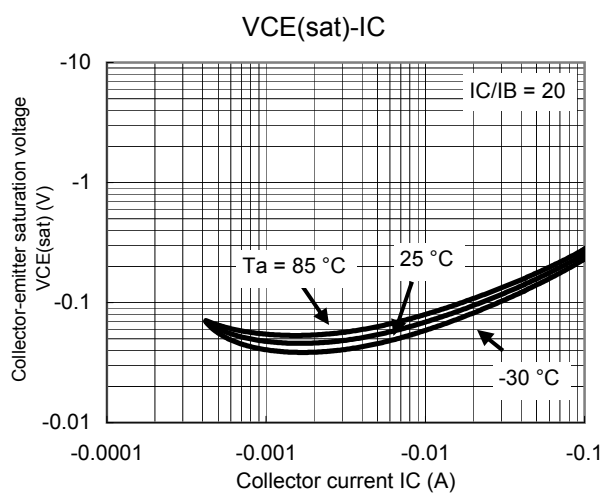
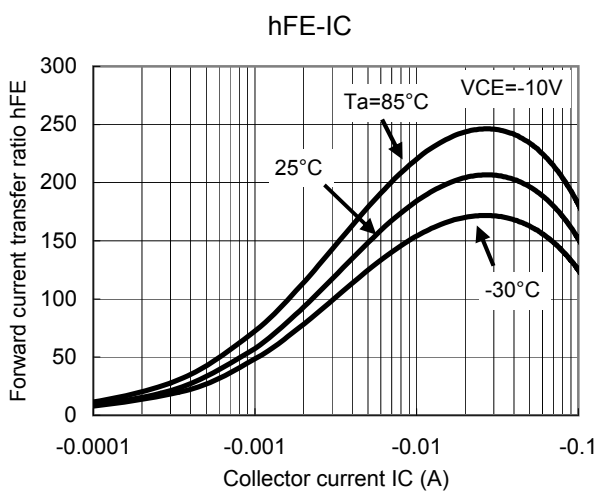
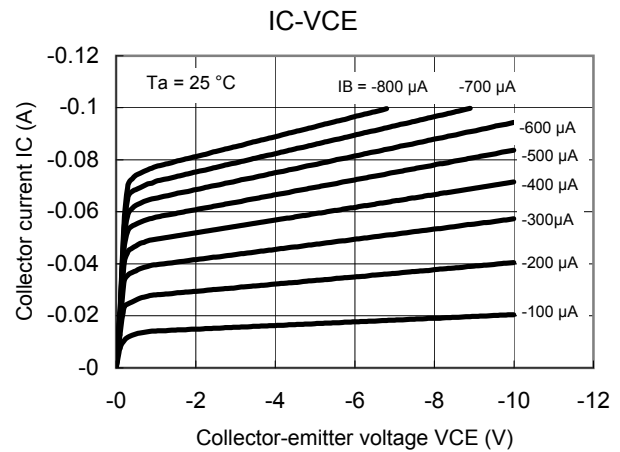
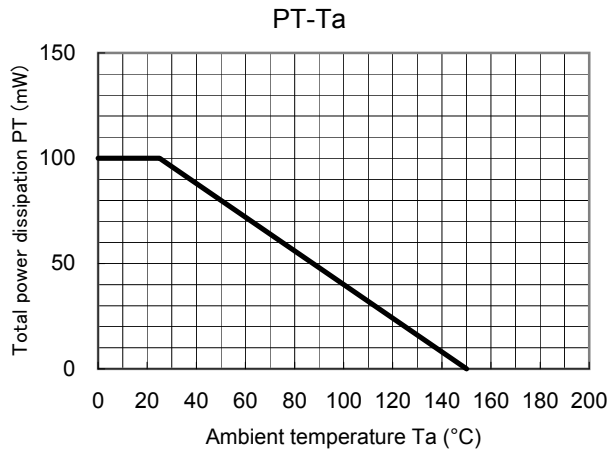


### ■ Electrical Characteristics Ta = 25 °C ± 3 °C

Parameter	Symbol	Conditions	Min	Typ	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			-0.2	mA
Forward current transfer ratio	hFE	VCE = -10 V, IC = -5 mA	80		400	-
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	-2.1			V
	Vi(off)	VCE = -5 V, IC = -100 μA			-0.6	V
Input resistance	R1		-30%	22	+30%	kΩ
Resistance ratio	R1/R2		0.37	0.47	0.57	-

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

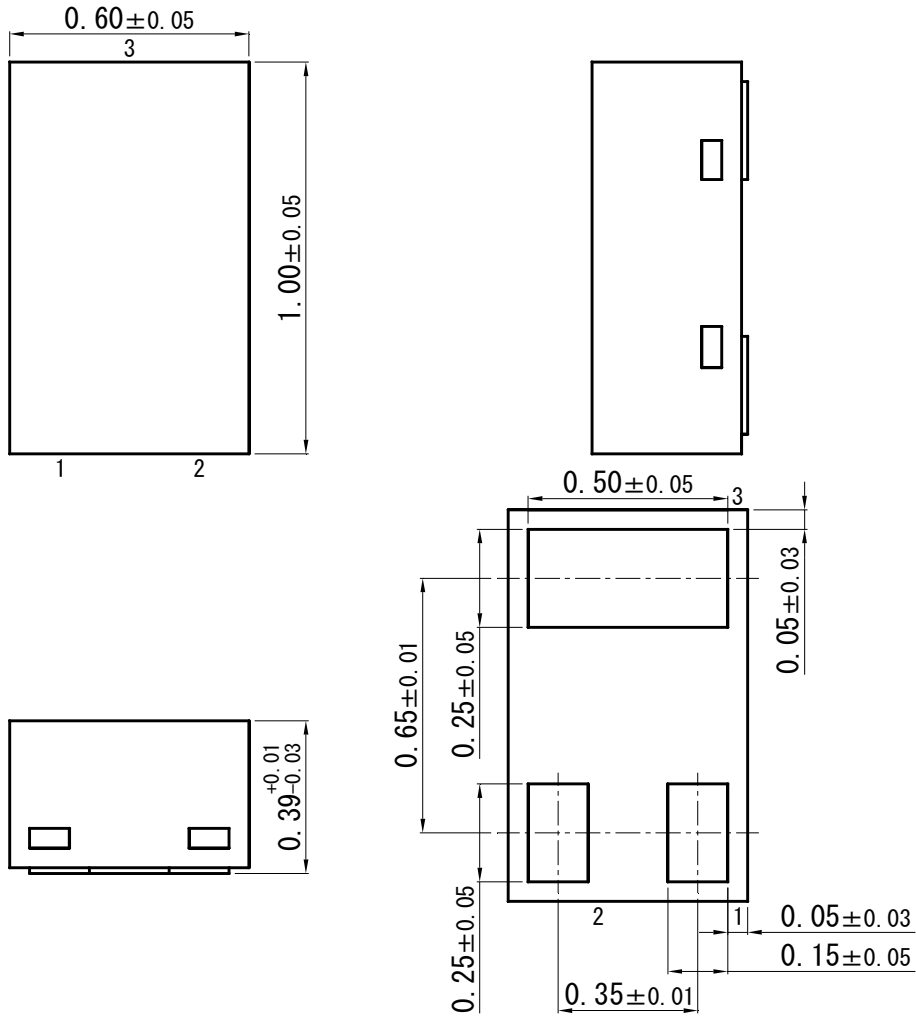
Technical Data ( reference )



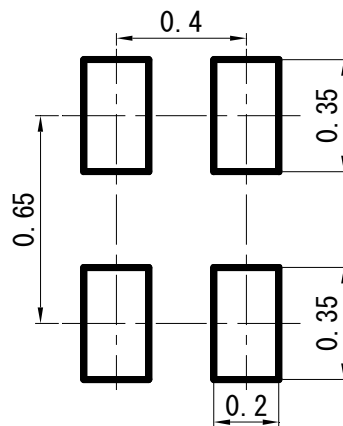


### ML3-N4-B

Unit: mm



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



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