

	<h1>Tentative</h1>	<b>DRCF123J</b>	
		Total pages	page

# DRCF123J

Silicon NPN epitaxial planar type

For digital circuits

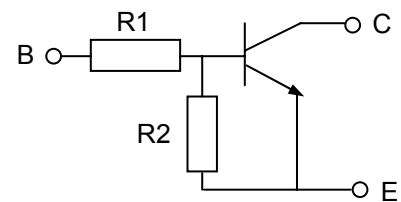
Marking Symbol : N4

Package Code : ML3-N4-B

## Absolute Maximum Ratings $T_a = 25\text{ }^\circ\text{C}$

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	100	mW
Junction temperature	Tj	150	$^\circ\text{C}$
Storage temperature	Tstg	-55 to +150	$^\circ\text{C}$

## Internal Connection



Resistance value	R1	2.2	k $\Omega$
	R2	47	k $\Omega$
Pin name	1.	Base	
	2.	Emitter	
	3.	Collector	

## Electrical Characteristics $T_a = 25\text{ }^\circ\text{C} \pm 3\text{ }^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	VCBO	IC = 10 $\mu\text{A}$ , 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	$\mu\text{A}$
Collector-emitter cutoff current (Base open)	ICEO	VCE = 50 V, IB = 0			0.5	$\mu\text{A}$
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 $\mu\text{A}$			0.4	
Input resistance	R1		-30%	2.2	+30%	k $\Omega$
Resistance ratio	R1/R2		0.037	0.047	0.057	-

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

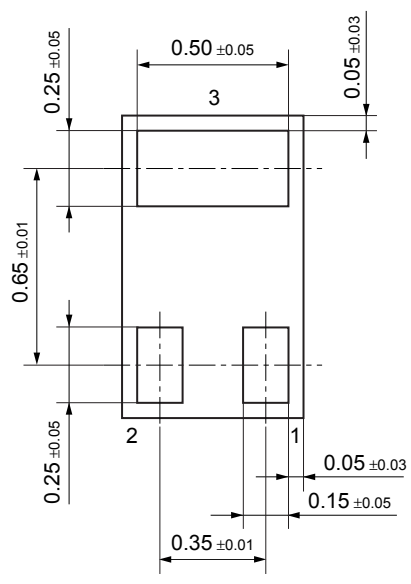
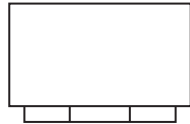
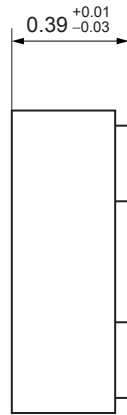
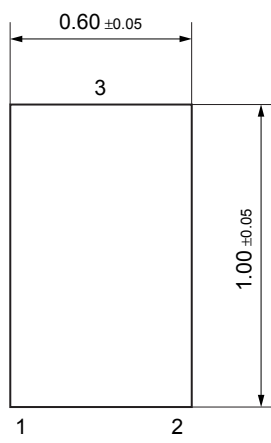
## Packing

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

2010.2.26	2010.7.12	
Prepared	Revised	

ML3-N4-B

Unit: mm



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