# **DRC9114W**

### Silicon NPN epitaxial planar type

For digital circuits Complementary to DRA9114W DRC5114W in SSMini3 type package

#### Features

- $\bullet$  Low collector-emitter saturation voltage  $V_{\text{CE}(\text{sat})}$
- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

#### Packaging

Embossed type (Thermo-compression sealing): 3000 pcs / reel (standard)

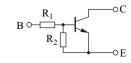
#### Absolute Maximum Ratings $T_a = 25^{\circ}C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	50	V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	50	V
Collector current	I <sub>C</sub>	100	mA
Total power dissipation	P <sub>T</sub>	125	mW
Junction temperature	Tj	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

- Package
- Code
- SSMini3-F3-B
- Pin Name
  - 1: Base
  - 2: Emitter
  - 3: Collector

#### Marking Symbol: N9

#### Internal Connection



Resistance value	R <sub>1</sub>	10	kΩ
	R <sub>2</sub>	4.7	kΩ

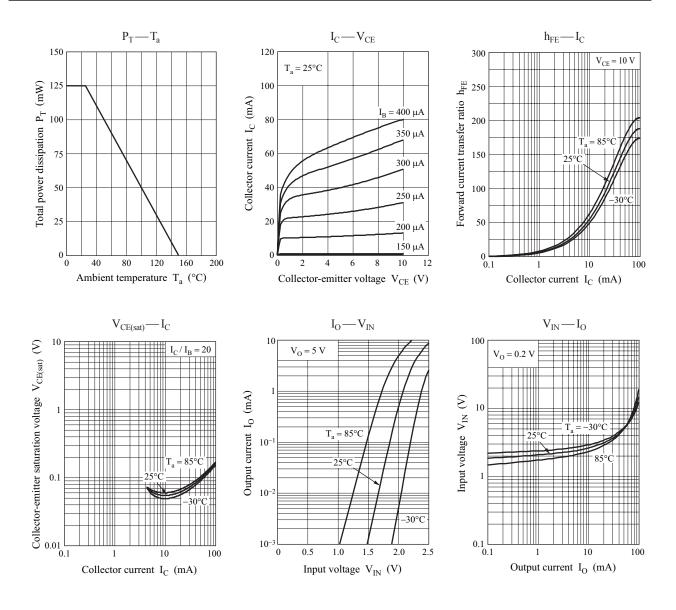
#### Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_{\rm C} = 10 \ \mu {\rm A}, I_{\rm E} = 0$	50			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{\rm C} = 2  {\rm mA},  I_{\rm B} = 0$	50			V
Collector-base cutoff current (Emitter open)	I <sub>CBO</sub>	$V_{CB} = 50 \text{ V}, I_E = 0$			0.1	μΑ
Collector-emitter cutoff current (Base open)	I <sub>CEO</sub>	$V_{CE} = 50 \text{ V}, I_{B} = 0$			0.5	μΑ
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = 6 V, I_C = 0$			1.0	mA
Forward current transfer ratio	$\mathbf{h}_{\mathrm{FE}}$	$V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$	20			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{\rm C} = 10 \text{ mA}, I_{\rm B} = 0.5 \text{ mA}$			0.25	V
Input voltage (ON)	V <sub>I(on)</sub>	$V_{\rm CE} = 0.2$ V, $I_{\rm C} = 5$ mA	3.0			V
Input voltage (OFF)	V <sub>I(off)</sub>	$V_{CE} = 5 \text{ V}, I_C = 100 \mu\text{A}$			1.3	V
Input resistance	R <sub>1</sub>		-30%	10	+30%	kΩ
Resistance ratio	$R_1/R_2$		1.70	2.13	2.60	

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

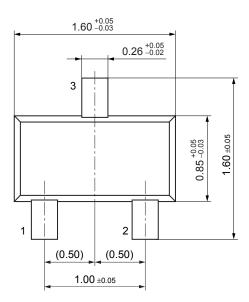
#### DRC9114W

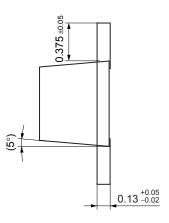
### **Panasonic**



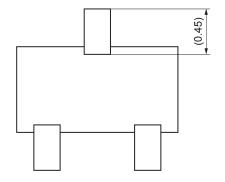
### SSMini3-F3-B

Unit: mm









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