# **DRC2114Y**

## Silicon NPN epitaxial planar type

For digital circuits
Complementary to DRA2114Y

#### ■ Features

- ullet Low collector-emitter saturation voltage  $V_{CE(sat)}$
- 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<sub>a</sub> = 25°C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	$V_{CBO}$	50	V	
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	50	V	
Collector current	$I_{C}$	100	mA	
Total power dissipation	P <sub>T</sub>	200	mW	
Junction temperature	T <sub>j</sub>	150	°C	
Storage temperature	T <sub>stg</sub>	-55 to +150	°C	

### ■ Package

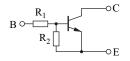
Code

Mini3-G3-B

- Pin Name
  - 1: Base
  - 2: Emitter
  - 3: Collector

## ■ Marking Symbol: NC

### ■ Internal Connection



Resistance value	R <sub>1</sub>	10	kΩ
	R <sub>2</sub>	47	kΩ

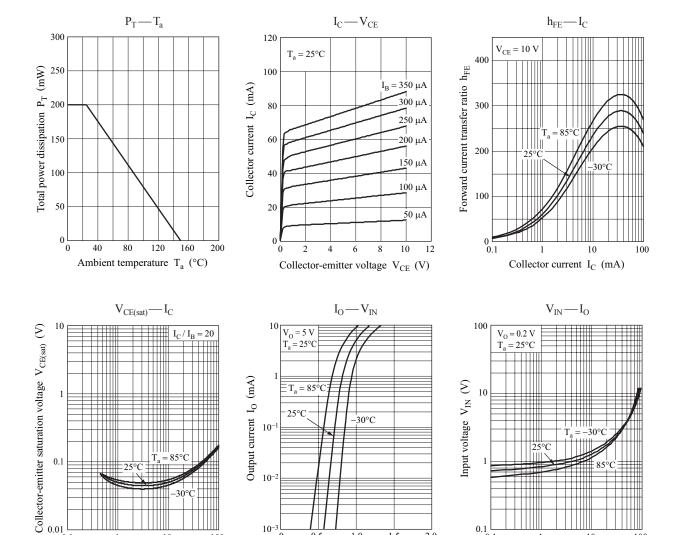
## ■ Electrical Characteristics $T_a = 25$ °C±3°C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_C = 10 \mu A, I_E = 0$	50			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{\rm C} = 2 \text{ mA}, I_{\rm B} = 0$	50			V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = 50 \text{ V}, I_{E} = 0$			0.1	μΑ
Collector-emitter cutoff current (Base open)	$I_{CEO}$	$V_{CE} = 50 \text{ V}, I_{B} = 0$			0.5	μΑ
Emitter-base cutoff current (Collector open)	I <sub>EBO</sub>	$V_{EB} = 6 \text{ V}, I_C = 0$			0.2	mA
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 10 \text{ V}, I_{C} = 5 \text{ mA}$	80			_
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_C = 10 \text{ mA}, I_B = 0.5 \text{ mA}$			0.25	V
Input voltage (ON)	V <sub>I(on)</sub>	$V_{CE} = 0.2 \text{ V}, I_{C} = 5 \text{ mA}$	1.7			V
Input voltage (OFF)	V <sub>I(off)</sub>	$V_{CE} = 5 \text{ V}, I_{C} = 100  \mu\text{A}$			0.5	V
Input resistance	$R_1$		-30%	10	+30%	kΩ
Resistance ratio	$R_1/R_2$		0.17	0.21	0.25	

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

DRC2114Y

## **Panasonic**



1.0

Input voltage  $V_{IN}$  (V)

0.1

10

Output current I<sub>O</sub> (mA)

100

2.0

10-2

10-3 \_\_\_\_\_

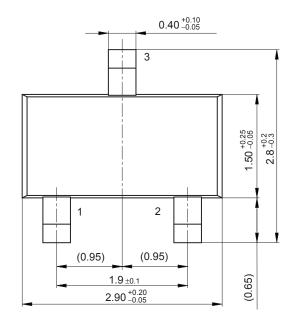
Ver. CED 2

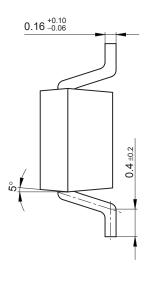
10

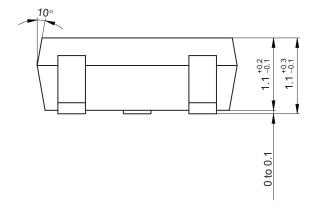
Collector current  $I_C$  (mA)

100

Mini3-G3-B Unit: mm







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