# XN04114 (XN4114)

### Silicon PNP epitaxial planar type

For switching/digital circuits

#### Features

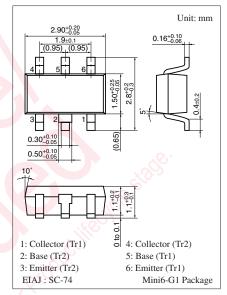
- Two elements incorporated into one package (Transistors with built-in resistor)
- Reduction of the mounting area and assembly cost by one half

#### Basic Part Number

• UNR2114 (UN2114) × 2

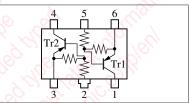
#### Absolute Maximum Ratings $T_a = 25^{\circ}C$

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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>	300	mW			
Junction temperature	Тј	150	°C			
Storage temperature	T <sub>stg</sub>	-55 to +150	°C			



#### Marking Symbol: BK

#### Internal Connection



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

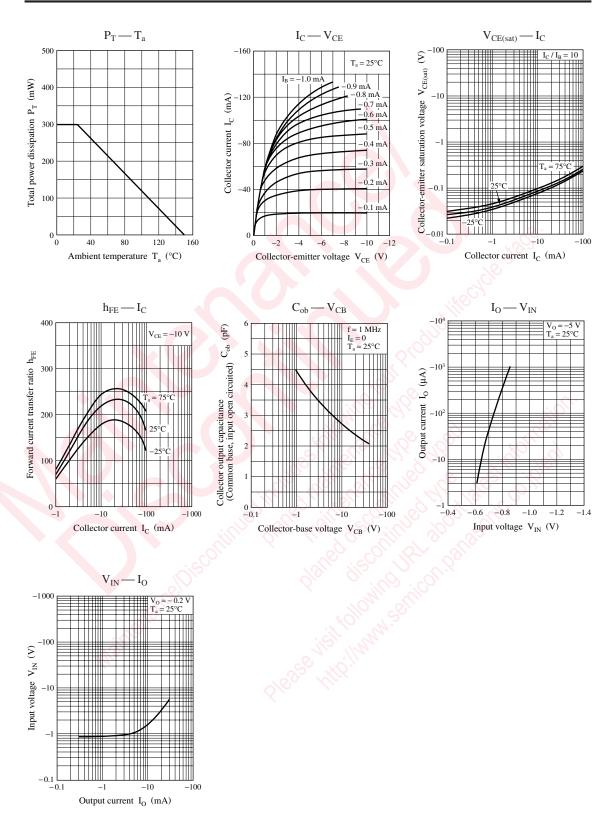
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_{\rm C} = -10 \ \mu A, I_{\rm E} = 0$	-50			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{\rm C} = -2 \text{ mA}, I_{\rm B} = 0$	-50			V
Collector-base cutoff current (Emitter open)	I <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 <sub>EBO</sub>	$V_{EB} = -6 V, I_C = 0$			- 0.2	mA
Forward current transfer ratio	h <sub>FE</sub>	$V_{CE} = -10$ V, $I_C = -5$ mA	80			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{\rm C} = -10$ mA, $I_{\rm B} = -0.3$ mA			- 0.25	V
Output voltage high-level	V <sub>OH</sub>	$V_{CC} = -5 \text{ V},  \text{V}_{B} = -0.5  \text{V},  \text{R}_{L} = 1  \text{k}\Omega$	-4.9			V
Output voltage low-level	V <sub>OL</sub>	$V_{CC} = -5 \text{ V}, V_B = -2.5 \text{ V}, R_L = 1 \text{ k}\Omega$			- 0.2	V
Input resistance	R <sub>1</sub>		-30%	10	+30%	kΩ
Resistance ratio	R <sub>1</sub> / R <sub>2</sub>		0.17	0.21	0.25	
Transition frequency	f <sub>T</sub>	$V_{CB} = -10 \text{ V}, I_E = 1 \text{ mA}, f = 200 \text{ MHz}$		80		MHz

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

Note) The part number in the parenthesis shows conventional part number.

**Panasonic** 

#### XN04114



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