

# RT1P14BX SERIES

〈Transistor〉

Transistor With Resistor  
For Switching Application  
Silicon PNP Epitaxial Type

## DESCRIPTION

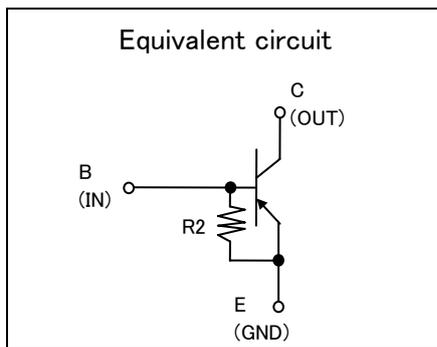
RT1P14BX is a one chip transistor with built-in bias resistor, NPN type is RT1N14BX.

## FEATURE

- Built-in bias resistor ( $R2=10k\Omega$ ).

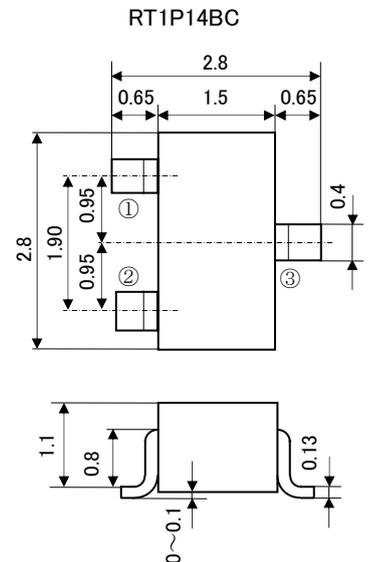
## APPLICATION

Inverted circuit, switching circuit, interface circuit, driver circuit.



## OUTLINE DRAWING

UNIT : mm



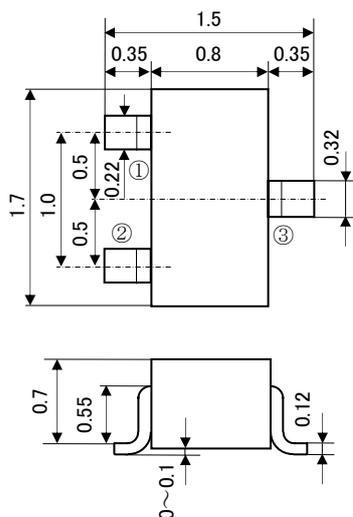
JEITA: SC-59

JEDEC: Similar to TO-236

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

**RT1P14BU**



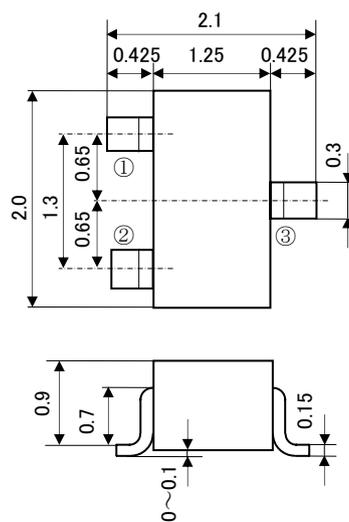
JEITA: SC-75A

JEDEC: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

**RT1P14BM**



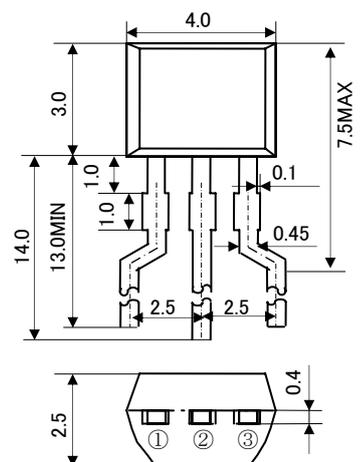
JEITA: SC-70

JEDEC: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

**RT1P14BS**



JEITA: —

JEDEC: —

Terminal Connector

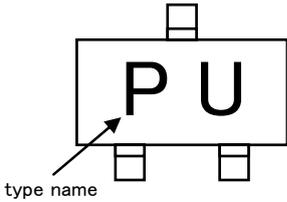
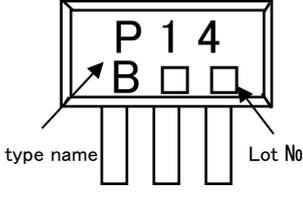
- ①: Emitter
- ②: Collector
- ③: Base

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## MARKING

RT1P14BC RT1P14BM RT1P14BU	RT1P14BS
	

## MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING				UNIT
		RT1P14BU	RT1P14BM	RT1P14BC	RT1P14BS	
V <sub>CBO</sub>	Collector to Base voltage	-50				V
V <sub>EBO</sub>	Emitter to Base voltage	-6				V
V <sub>CEO</sub>	Collector to Emitter voltage	-50				V
I <sub>C</sub>	Collector current	-100				mA
I <sub>CM</sub>	Peak Collector current	-200				mA
P <sub>C</sub>	Collector dissipation(Ta=25°C)	150	200	450	mW	
T <sub>j</sub>	Junction temperature	+150				°C
T <sub>stg</sub>	Storage temperature	-55~+150				°C

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

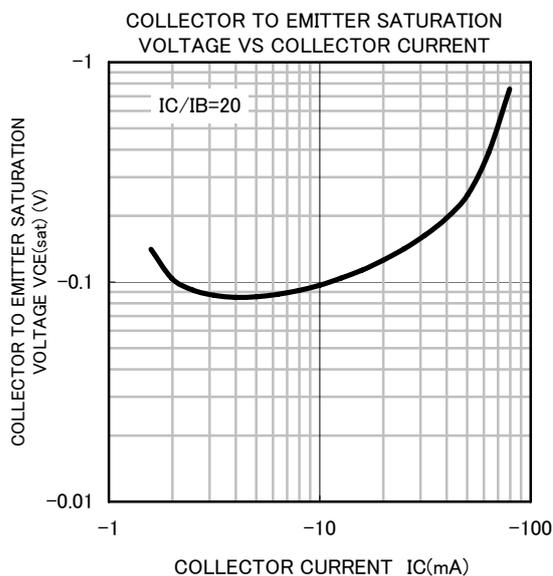
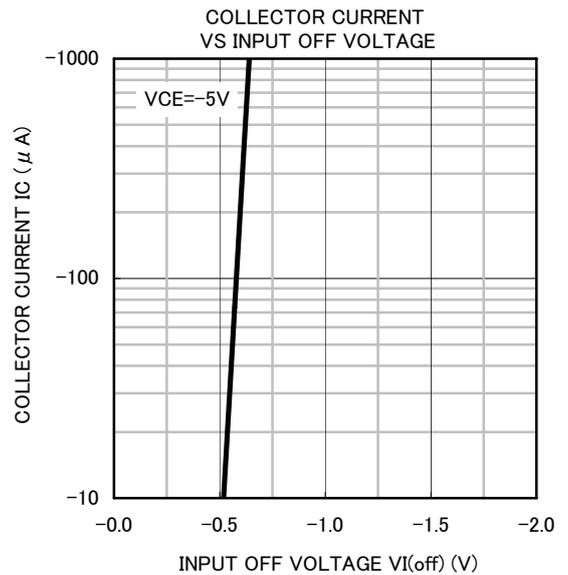
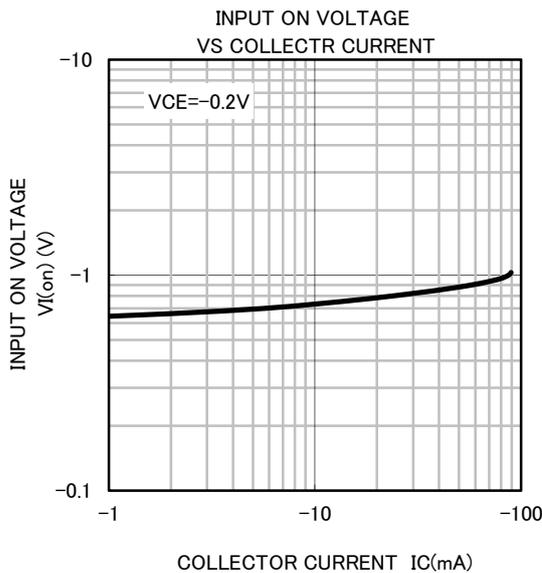
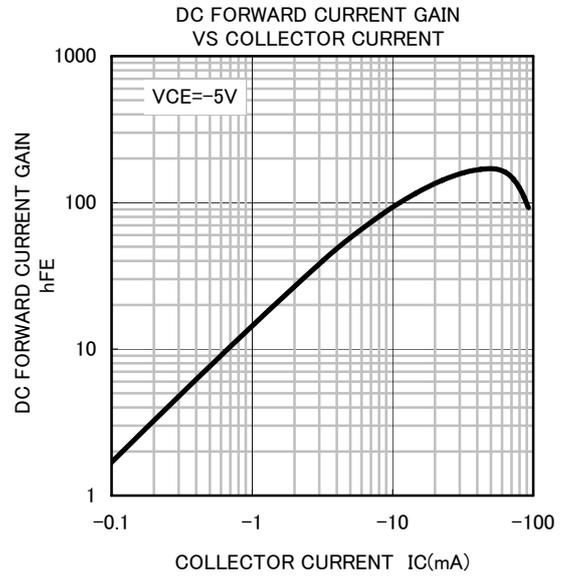
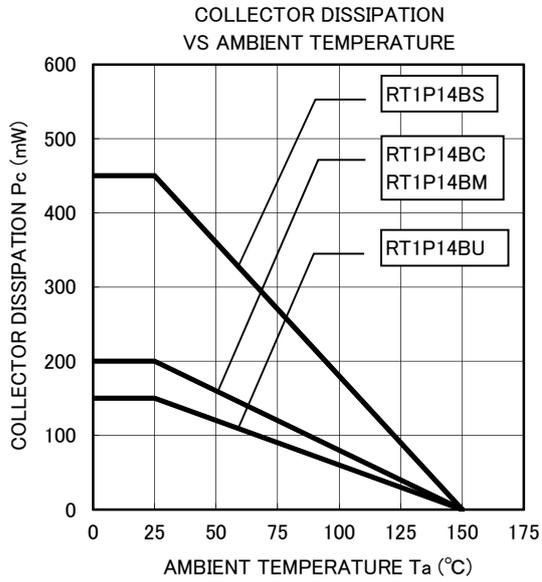
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
V <sub>(BR)CEO</sub>	C to E break down voltage	I <sub>C</sub> = -100 μA, R <sub>BE</sub> = ∞	-50	—	—	V
I <sub>CBO</sub>	Collector cut off current	V <sub>CB</sub> = -50V, I <sub>E</sub> = 0	—	—	-0.1	μA
I <sub>EBO</sub>	Emitter cut off current	V <sub>EB</sub> = -5V, I <sub>C</sub> = 0	-375	-500	-725	μA
h <sub>FE</sub>	DC forward current gain	V <sub>CE</sub> = -5V, I <sub>C</sub> = -5mA	30	—	—	—
V <sub>CE(sat)</sub>	C to E saturation voltage	I <sub>C</sub> = -10mA, I <sub>B</sub> = -0.5mA	—	—	-0.3	V
R <sub>2</sub>	Emitter-base resistor	—	7	10	13	kΩ
f <sub>T</sub>	Gain band width product	V <sub>CE</sub> = -6V, I <sub>E</sub> = 10mA	—	150	—	MHz

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## TYPICAL CHARACTERISTICS (Ta=25°C)





**Keep safety first in your circuit designs!**

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