

# RT1P24BX SERIES

〈Transistor〉

Transistor With Resistor  
For Switching Application  
Silicon PNP Epitaxial Type

## DESCRIPTION

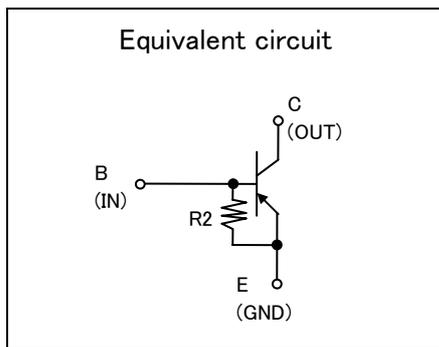
RT1P24BX is a one chip transistor with built-in bias resistor, NPN type is RT1N24BX.

## FEATURE

- Built-in bias resistor ( $R2=22k\Omega$ ).

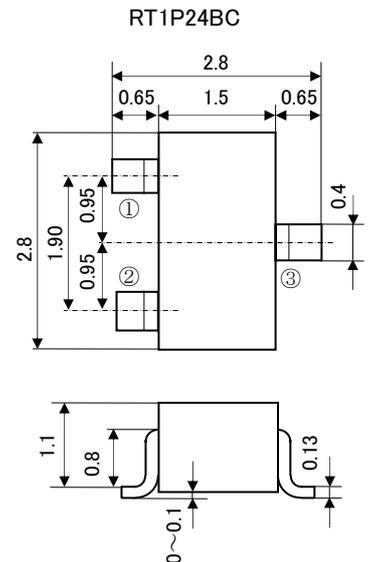
## APPLICATION

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



## OUTLINE DRAWING

UNIT : mm



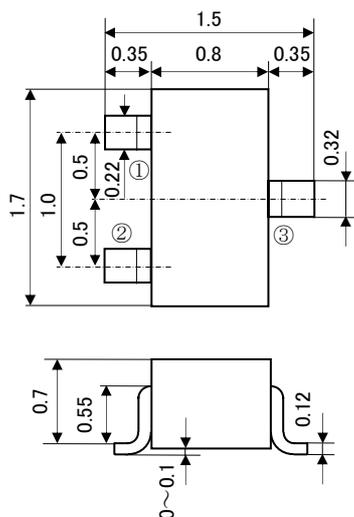
JEITA: SC-59

JEDEC: Similar to TO-236

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P24BU



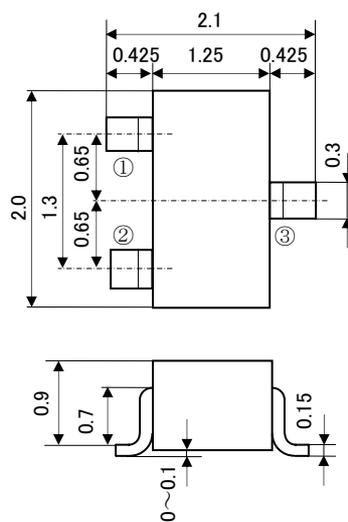
JEITA: SC-75A

JEDEC: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P24BM



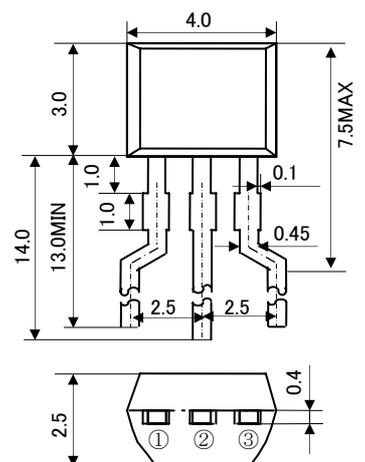
JEITA: SC-70

JEDEC: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1P24BS



JEITA: —

JEDEC: —

Terminal Connector

- ①: Emitter
- ②: Collector
- ③: Base

# RT1P24BX SERIES

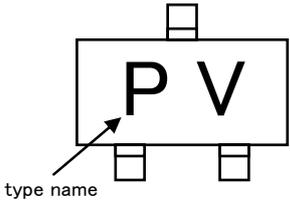
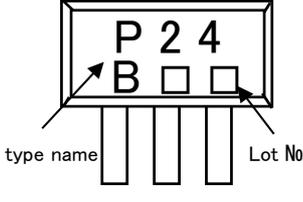
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## MARKING

RT1P24BC RT1P24BM RT1P24BU	RT1P24BS
	

## MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING				UNIT
		RT1P24BU	RT1P24BM	RT1P24BC	RT1P24BS	
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)

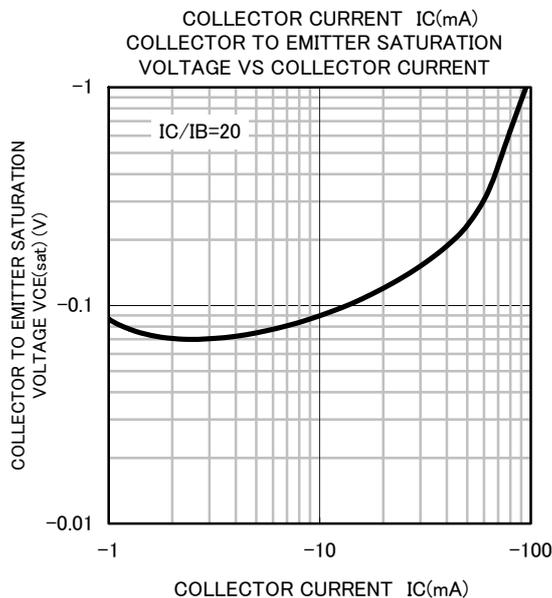
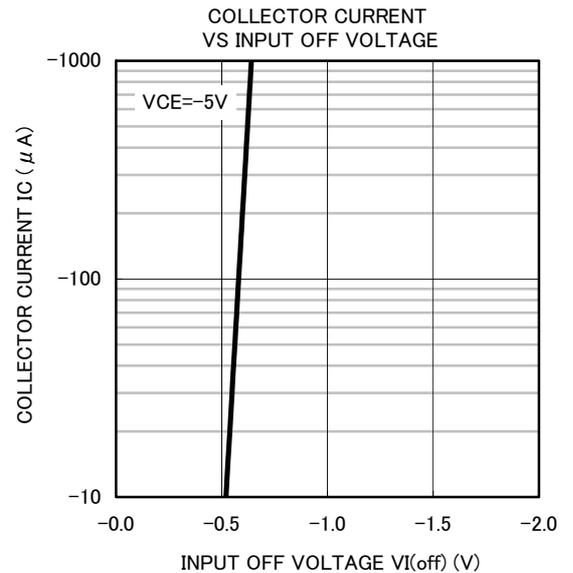
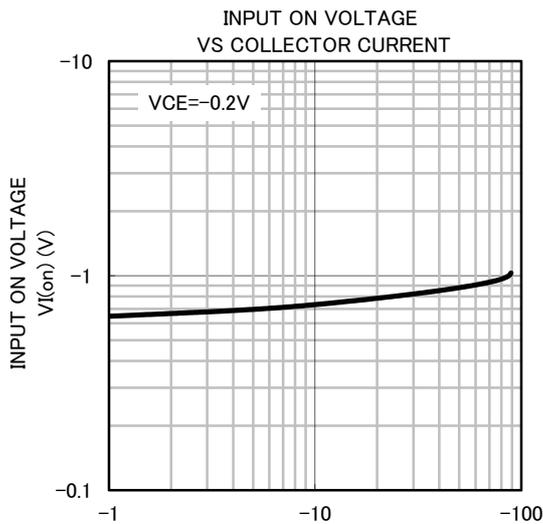
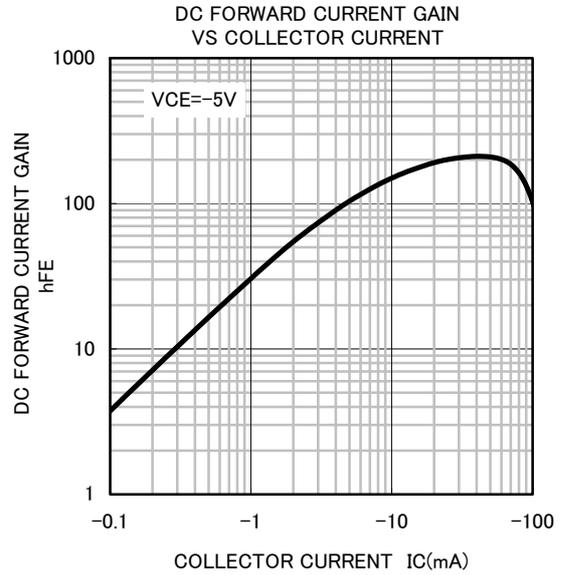
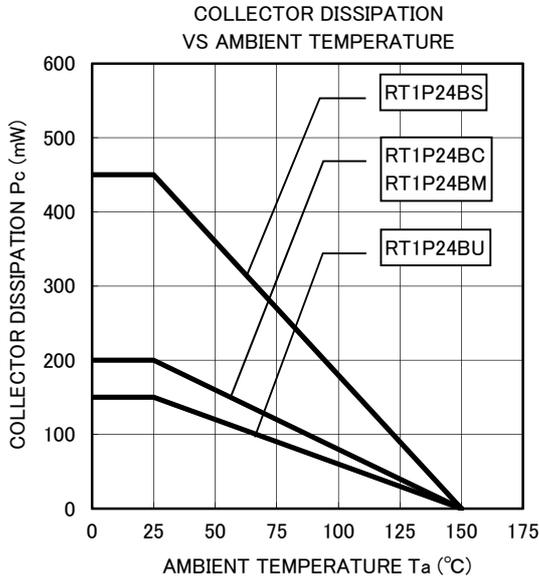
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
V <sub>(BR)CEO</sub>	C to E break down voltage	I <sub>C</sub> = -100 μA, R <sub>BE</sub> = ∞	-50	—	—	V
I <sub>CBO</sub>	Collector cut off current	V <sub>CB</sub> = -50V, I <sub>E</sub> = 0	—	—	-0.1	μA
I <sub>EBO</sub>	Emitter cut off current	V <sub>EB</sub> = -5V, I <sub>C</sub> = 0	-170	-227	-330	μA
h <sub>FE</sub>	DC forward current gain	V <sub>CE</sub> = -5V, I <sub>C</sub> = -5mA	56	—	—	—
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	—	15	22	29	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!**

·ISAHAYA Electronics Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage. Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (1) placement of substitutive, auxiliary, (2) use of non-flammable material or (3) prevention against any malfunction or mishap.

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