

# RT1P44HX SERIES

〈Transistor〉

Transistor With Resistor  
For Switching Application  
Silicon PNP Epitaxial Type

## DESCRIPTION

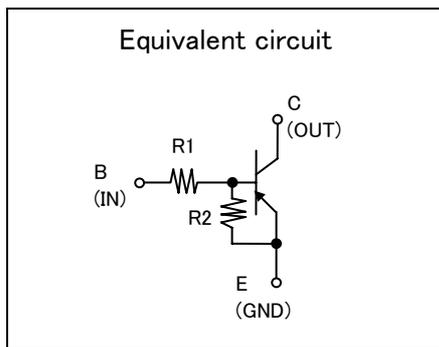
RT1P44HX is a one chip transistor with built-in bias resistor, NPN type is RT1N44HX

## FEATURE

• Built-in bias resistor (R1=47kΩ, R2=22kΩ).

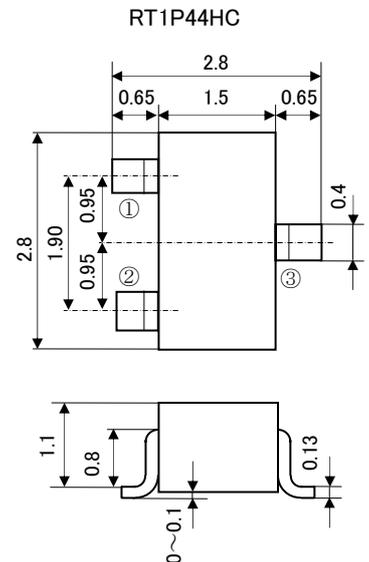
## APPLICATION

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



## OUTLINE DRAWING

UNIT : mm



JEITA: SC-59

JEDEC: Similar to TO-236

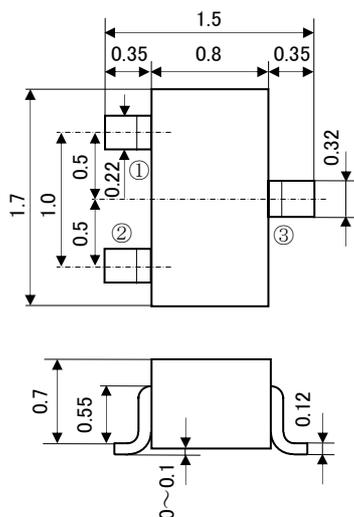
Terminal Connector

①: Base

②: Emitter

③: Collector

RT1P44HU



JEITA: SC-75A

JEDEC: —

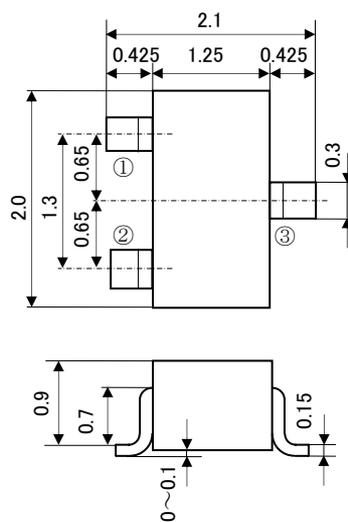
Terminal Connector

①: Base

②: Emitter

③: Collector

RT1P44HM



JEITA: SC-70

JEDEC: —

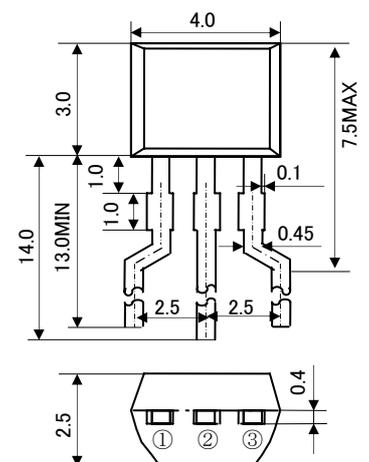
Terminal Connector

①: Base

②: Emitter

③: Collector

RT1P44HS



JEITA: —

JEDEC: —

Terminal Connector

①: Emitter

②: Collector

③: Base

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## MARKING

RT1P44HC RT1P44HM RT1P44HU	RT1P44HS

## MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING				UNIT
		RT1P44HU	RT1P44HM	RT1P44HC	RT1P44HS	
V <sub>CBO</sub>	Collector to Base voltage	-50				V
V <sub>EBO</sub>	Emitter to Base voltage	-10				V
V <sub>CEO</sub>	Collector to Emitter voltage	-50				V
V <sub>IN</sub>	Input voltage	-40				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)

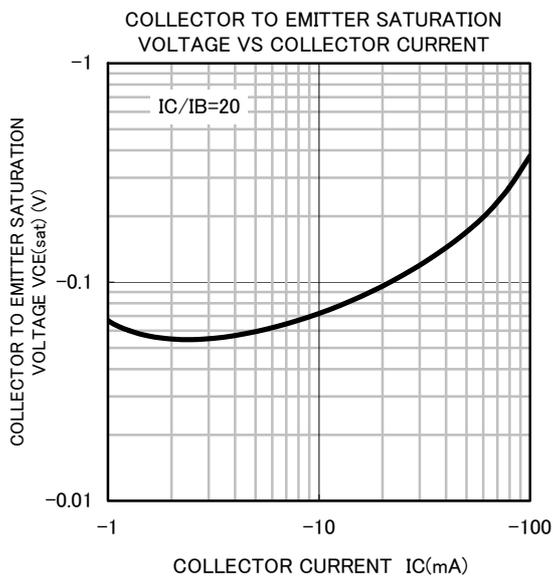
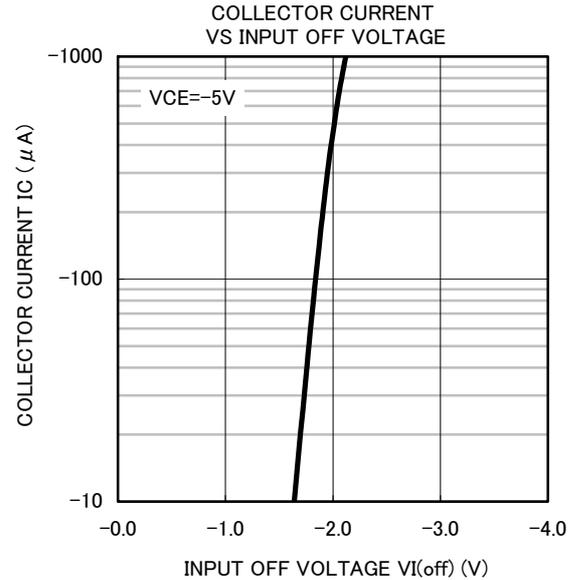
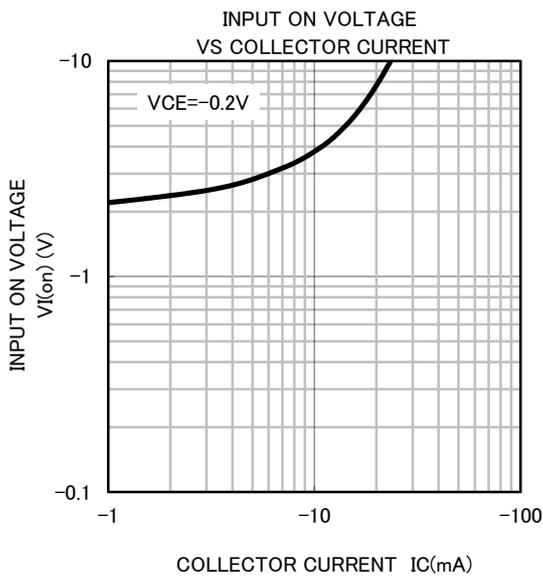
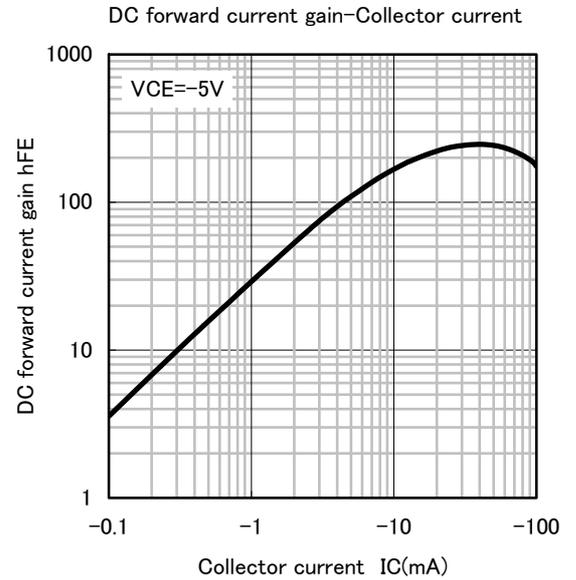
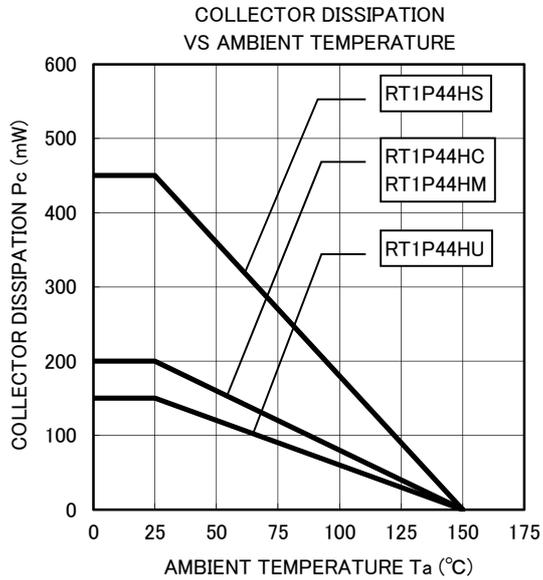
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
V <sub>(BR)CEO</sub>	C to E break down voltage	I <sub>C</sub> = -100 μA, R <sub>BE</sub> = ∞	-50	—	—	V
I <sub>CBO</sub>	Collector cut off current	V <sub>CB</sub> = -50V, I <sub>E</sub> = 0	—	—	-0.1	μA
I <sub>EBO</sub>	Emitter cut off current	V <sub>EB</sub> = -5V, I <sub>C</sub> = 0	-54	-72	-105	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	—	-0.1	-0.3	V
V <sub>I(ON)</sub>	Input on voltage	V <sub>CE</sub> = -0.2V, I <sub>C</sub> = -5mA	—	-2.6	-6.3	V
V <sub>I(OFF)</sub>	Input off voltage	V <sub>CE</sub> = -5V, I <sub>C</sub> = -100 μA	-1.3	-1.7	—	V
R <sub>1</sub>	Input resistor	—	33	47	61	kΩ
R <sub>2</sub> /R <sub>1</sub>	Resistor ratio	—	0.37	0.47	0.57	—
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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