

# RT1P230X SERIES

〈Transistor〉

Transistor With Resistor

For Switching Application

Silicon PNP Epitaxial Type

## DESCRIPTION

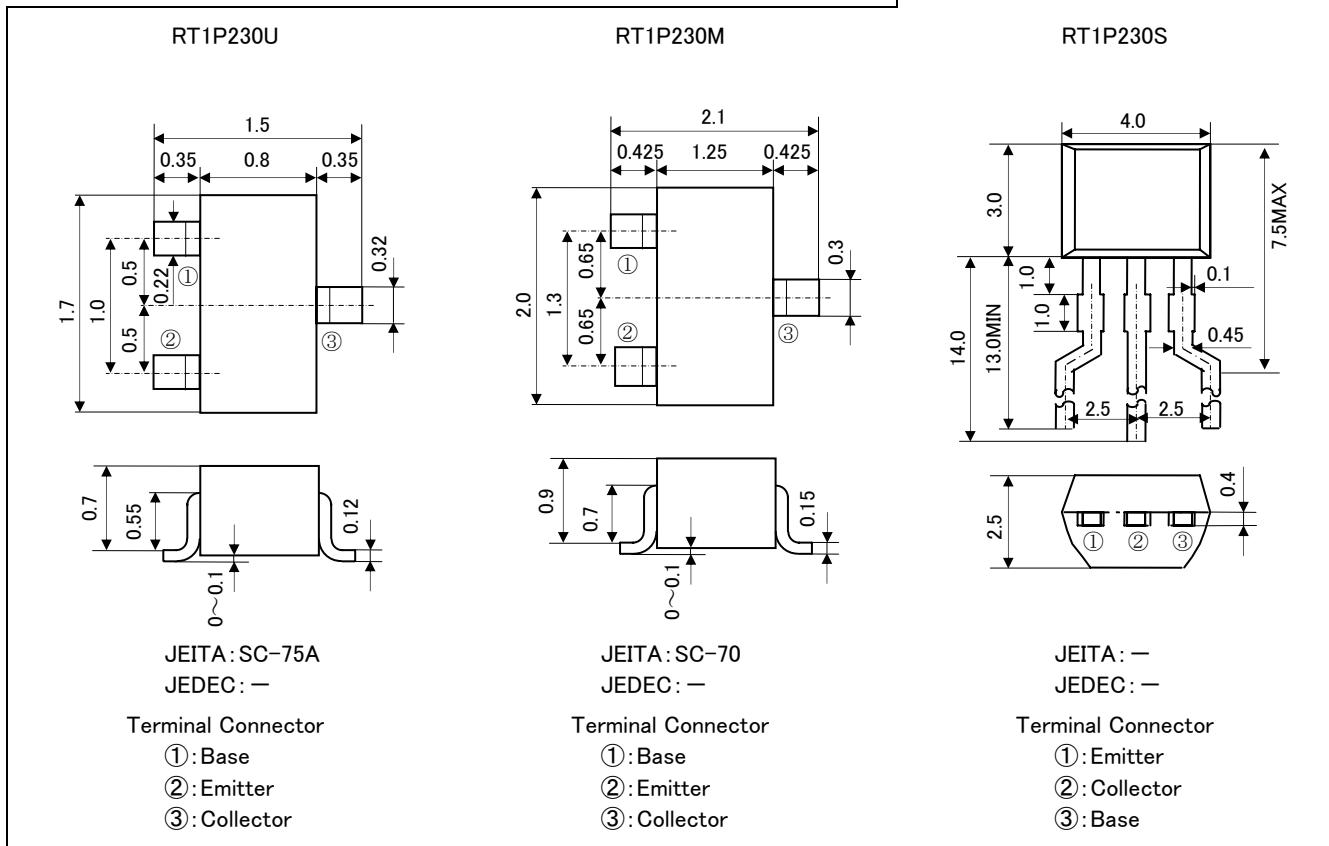
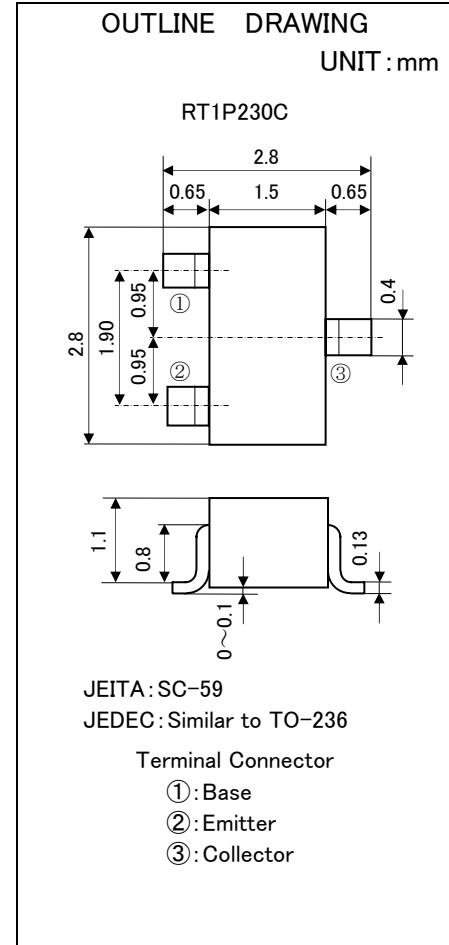
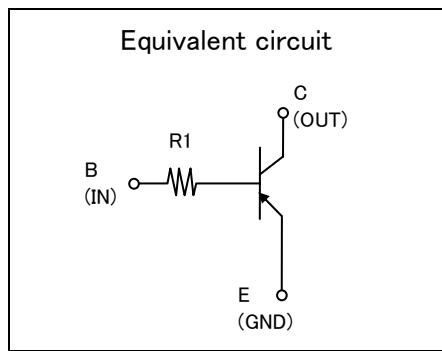
RT1P230X is a one chip transistor with built-in bias resistor, NPN type is RT1N230X.

## FEATURE

- Built-in bias resistor ( $R1=2.2k\Omega$ ).

## APPLICATION

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



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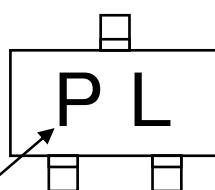
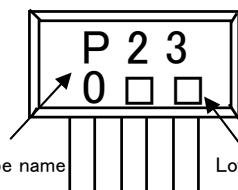
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## MARKING

RT1P230C RT1P230M RT1P230U	RT1P230S
	

## MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING				UNIT
		RT1P230U	RT1P230M	RT1P230C	RT1P230S	
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	—	—	-0.1	μA
h <sub>FE</sub>	DC forward current gain	V <sub>CE</sub> =-5V, I <sub>C</sub> =-1mA	100	—	—	—
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
R <sub>1</sub>	Input resistor	—	1.5	2.2	2.9	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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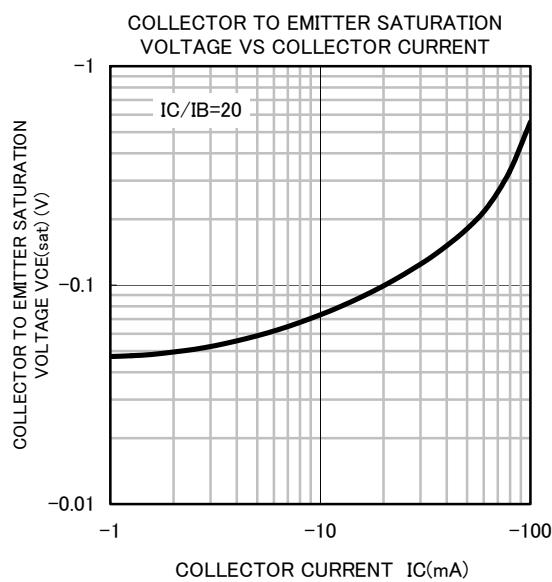
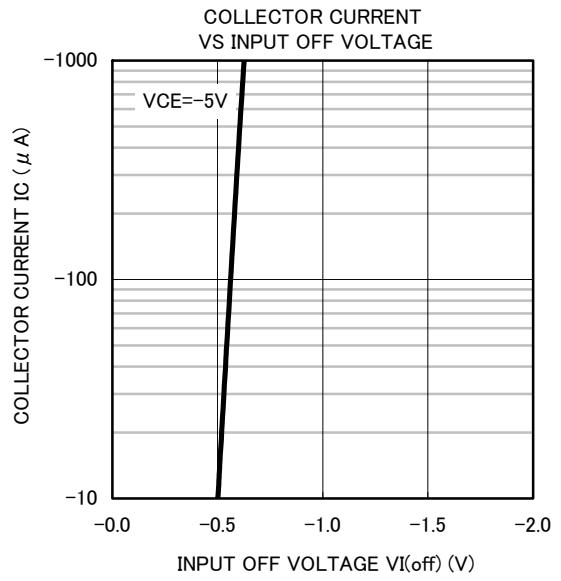
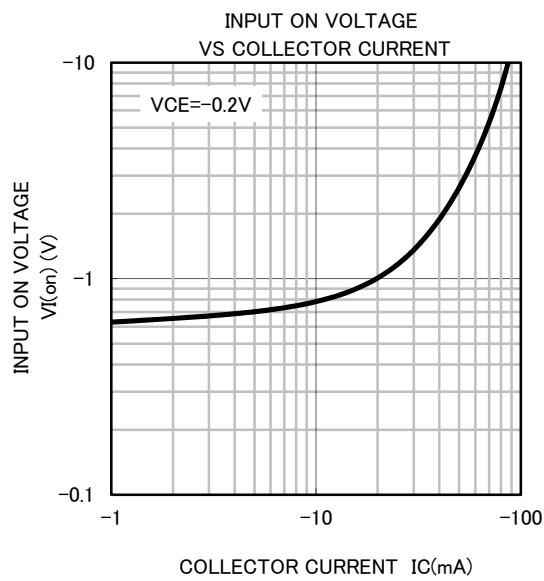
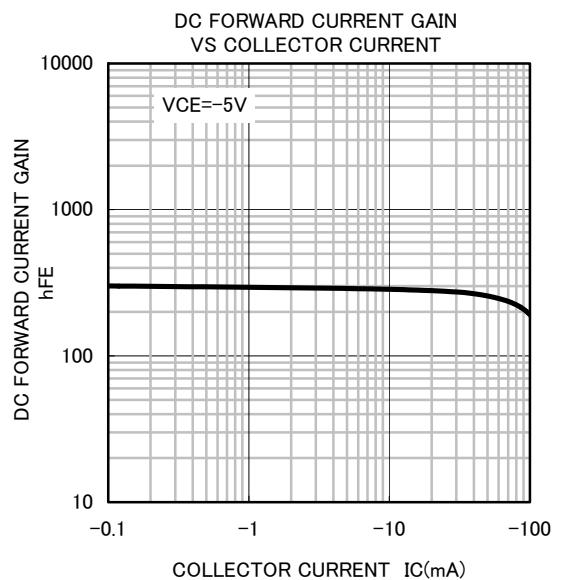
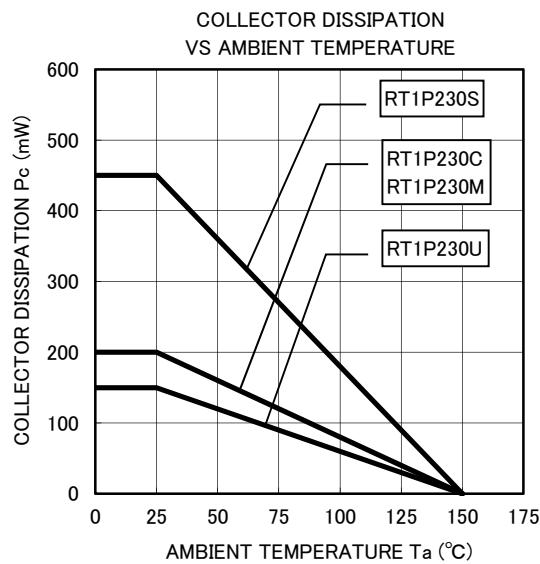
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## TYPICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )



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