

RT1N230X SERIES

〈Transistor〉

Transistor With Resistor
For Switching Application
Silicon NPN Epitaxial Type

DESCRIPTION

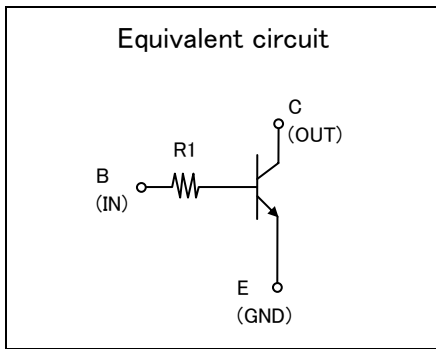
RT1N230X is a one chip transistor with built-in bias resistor, PNP type is RT1P230X.

FEATURE

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

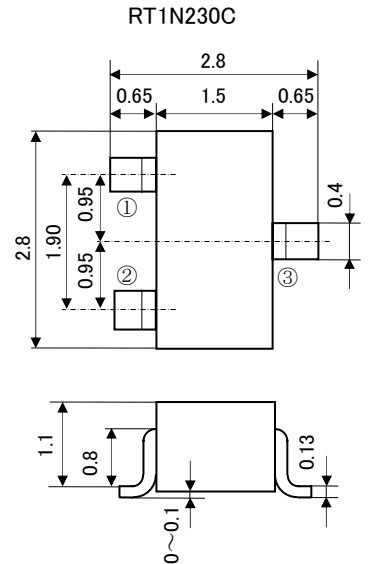
APPLICATION

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



OUTLINE DRAWING

UNIT : mm

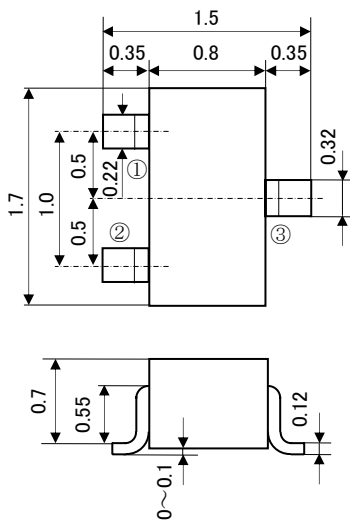


JEITA : SC-59
JEDEC : Similar to TO-236

Terminal Connector

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

RT1N230U

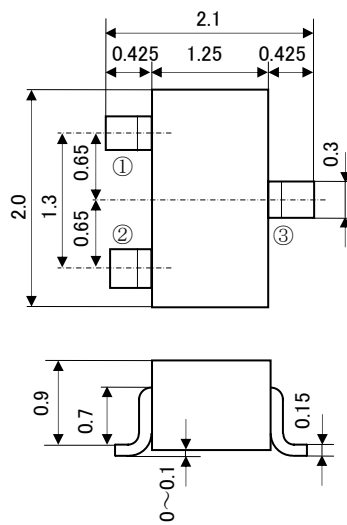


JEITA : SC-75A
JEDEC : —

Terminal Connector

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

RT1N230M

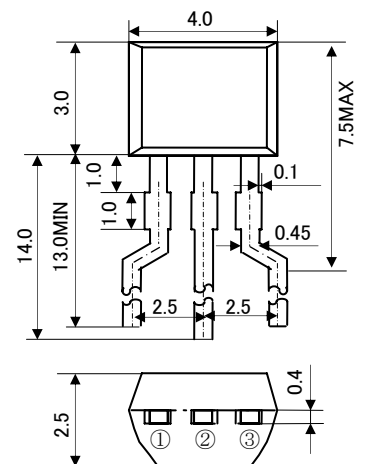


JEITA : SC-70
JEDEC : —

Terminal Connector

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

RT1N230S



JEITA : —
JEDEC : —

Terminal Connector

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

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MARKING

RT1N230C RT1N230M RT1N230U	RT1N230S

MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING				UNIT
		RT1N230U	RT1N230M	RT1N230C	RT1N230S	
V _{CBO}	Collector to Base voltage	50				V
V _{EBO}	Emitter to Base voltage	6				V
V _{CEO}	Collector to Emitter voltage	50				V
I _C	Collector current	100				mA
I _{CM}	Peak Collector current	200				mA
P _C	Collector dissipation(Ta=25°C)	150	200	450		mW
T _j	Junction temperature	+150				°C
T _{stg}	Storage temperature	-55~+150				°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

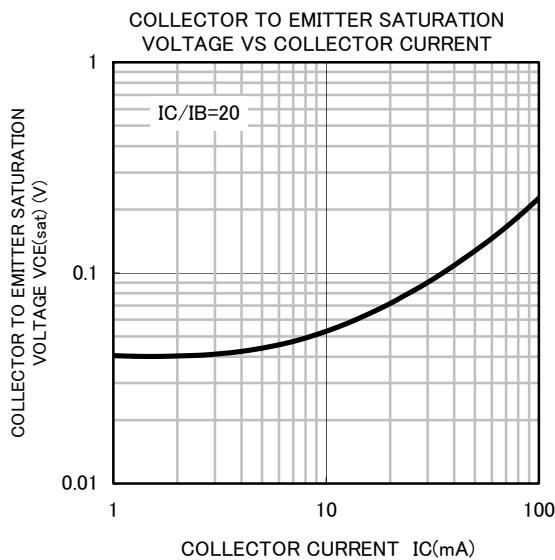
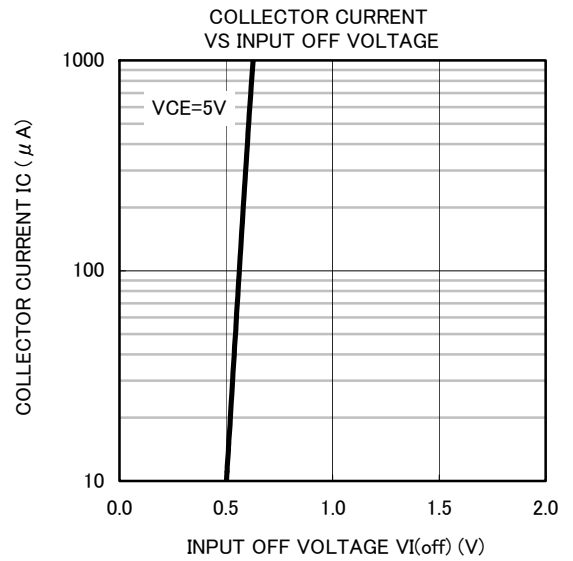
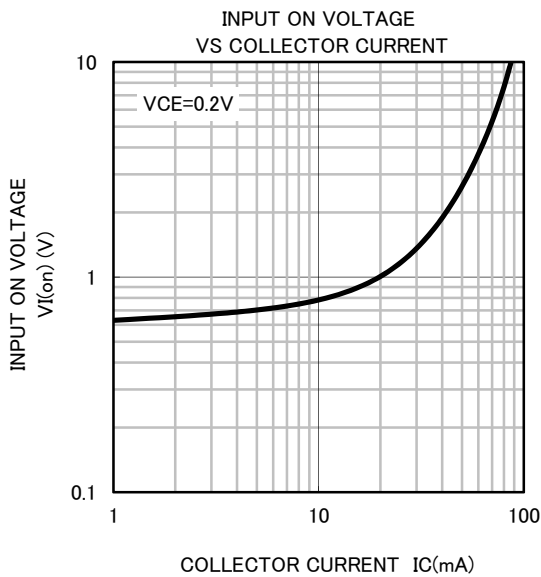
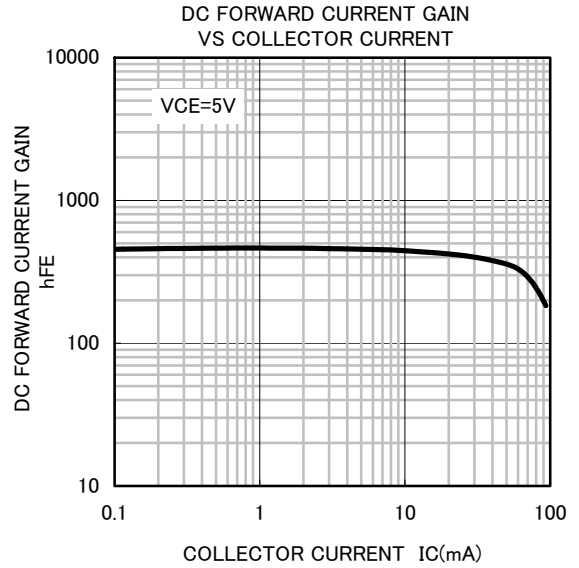
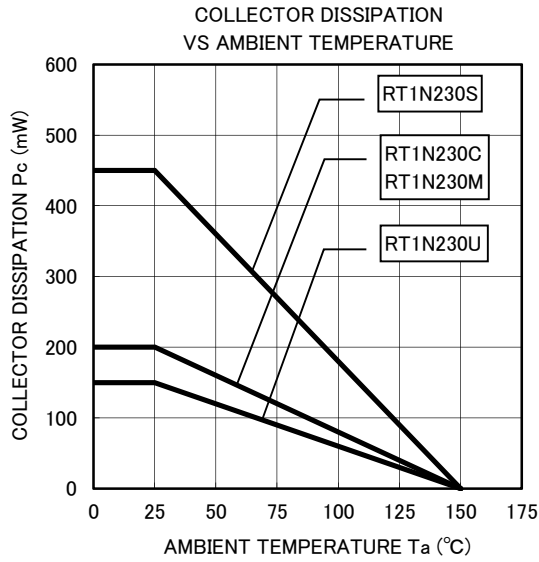
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
V _{(BR)CEO}	C to E break down voltage	I _C =100 μA, R _{BE} =∞	50	—	—	V
I _{CBO}	Collector cut off current	V _{CB} =50V, I _E =0	—	—	0.1	μA
I _{EBO}	Emitter cut off current	V _{EB} =5V, I _C =0	—	—	0.1	μA
h _{FE}	DC forward current gain	V _{CE} =5V, I _C =1mA	100	—	—	—
V _{CE(sat)}	C to E saturation voltage	I _C =10mA, I _B =0.5mA	—	—	0.3	V
R ₁	Input resistor	—	1.5	2.2	2.9	kΩ
f _T	Gain band width product	V _{CE} =6V, I _E =-10mA	—	200	—	MHz

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TYPICAL CHARACTERISTICS (Ta=25°C)





Keep safety first in your circuit designs!

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