

RT5N14BC

Transistor With Resistor
For Switching Application
Silicon NPN Epitaxial Type

DESCRIPTION

RT5N14BC is a one chip transistor with built-in bias resistor, PNP type is RT5P14BC.

FEATURE

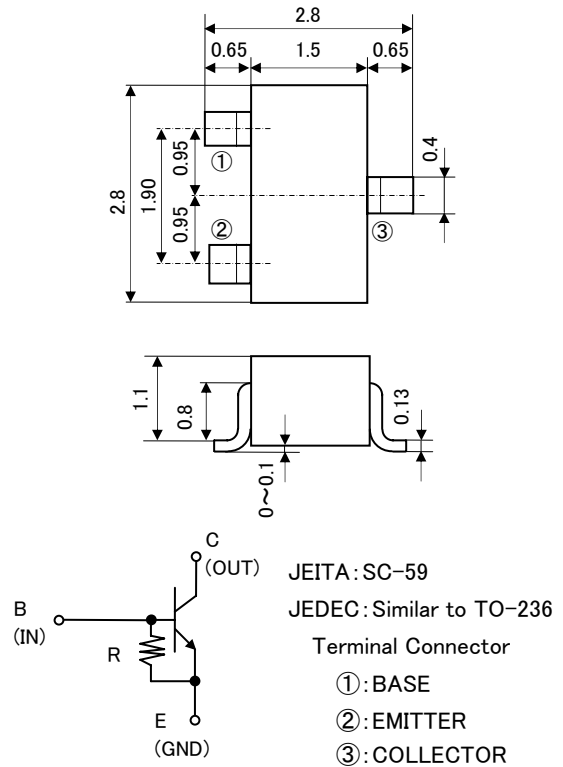
Built-in bias resistor ($R=10k\Omega$)
High collector current ($I_C=0.5A$)
Mini package for easy mounting

APPLICATION

Inverted circuit, Switching circuit, Interface circuit,
Driver circuit

OUTLINE DRAWING

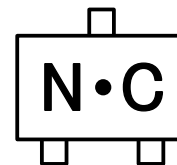
Unit: mm



MAXIMUM RATING ($T_a=25^\circ C$)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	50	V
V_{EBO}	Emitter to Base voltage	5	V
V_{CEO}	Collector to Emitter voltage	50	V
I_C	Collector current	500	mA
P_C	Collector dissipation($T_a=25^\circ C$)	200	mW
T_j	Junction temperature	+150	$^\circ C$
T_{stg}	Storage temperature	-55~+150	$^\circ C$

MARKING



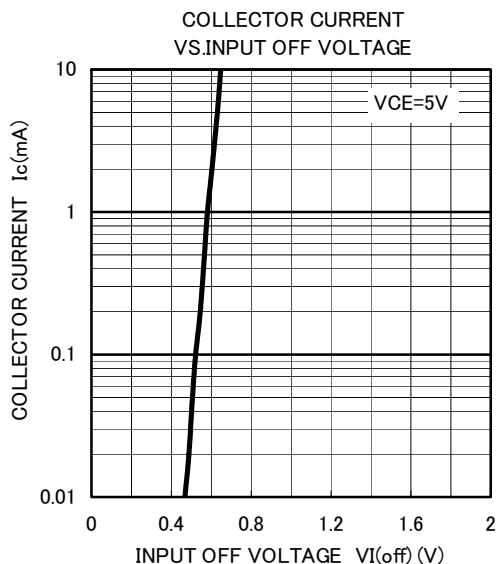
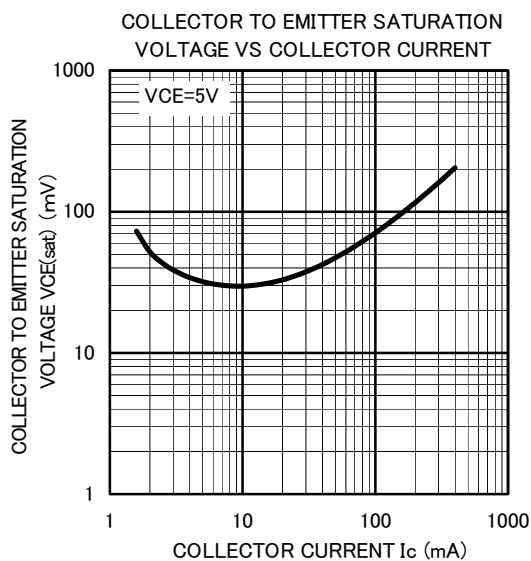
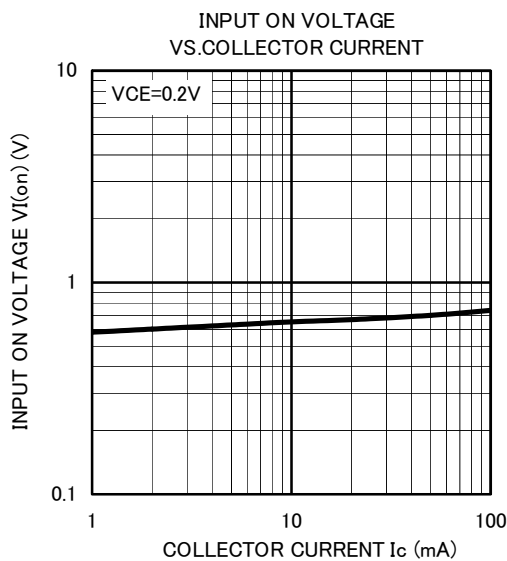
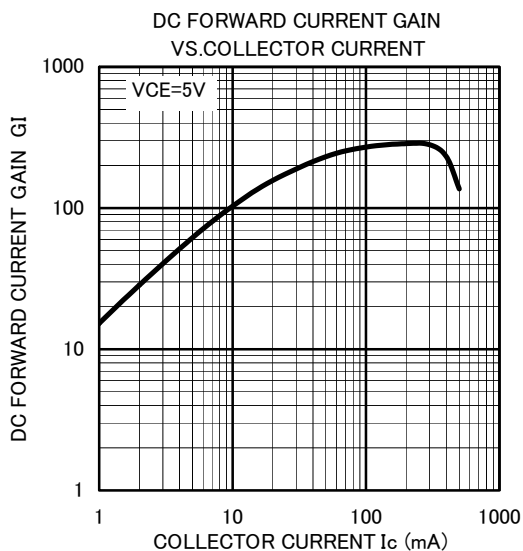
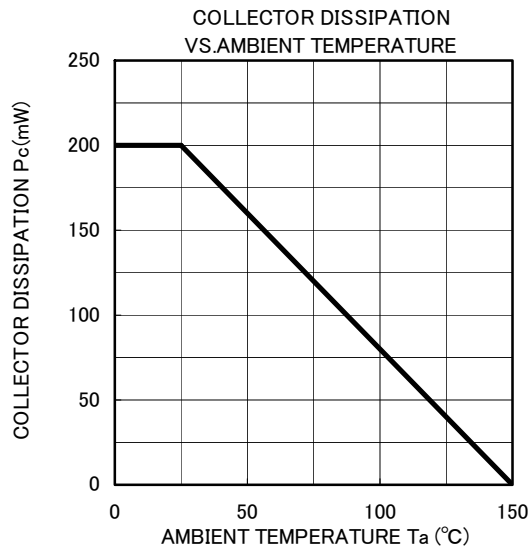
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
V_{CEO}	C to E break down voltage	$I_C=1mA$	50	—	—	V
I_{CBO}	Collector cut off current	$V_{CB}=50V$	—	—	0.5	μA
I_{EBO}	Emitter cut off current	$V_{EB}=5V$	0.385	—	0.714	mA
$V_{CE(sat)}$	C to E saturation voltage	$I_C=50mA, I_B=2.5mA$	—	—	0.3	V
G_I	DC forward current gain	$V_{CE}=5V, I_E=100mA$	56	—	—	—
R	Emitter-base resistor	—	7	10	13	$k\Omega$
f_T	Gain band width product	$V_{CE}=10V, I_E=-5mA, f=100MHz$	—	150	—	MHz

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TYPICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$)





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