

# RT1N14BX SERIES

<Transistor>

Transistor With Resistor  
For Switching Application  
Silicon NPN Epitaxial Type

## DESCRIPTION

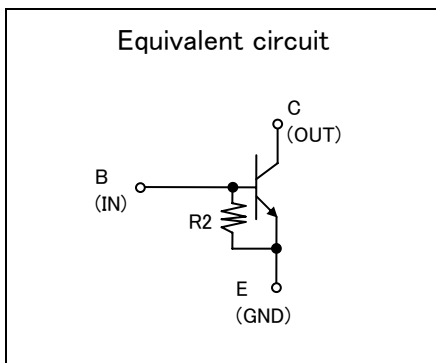
RT1N14BX is a one chip transistor with built-in bias resistor, PNP type is RT1P14BX.

## FEATURE

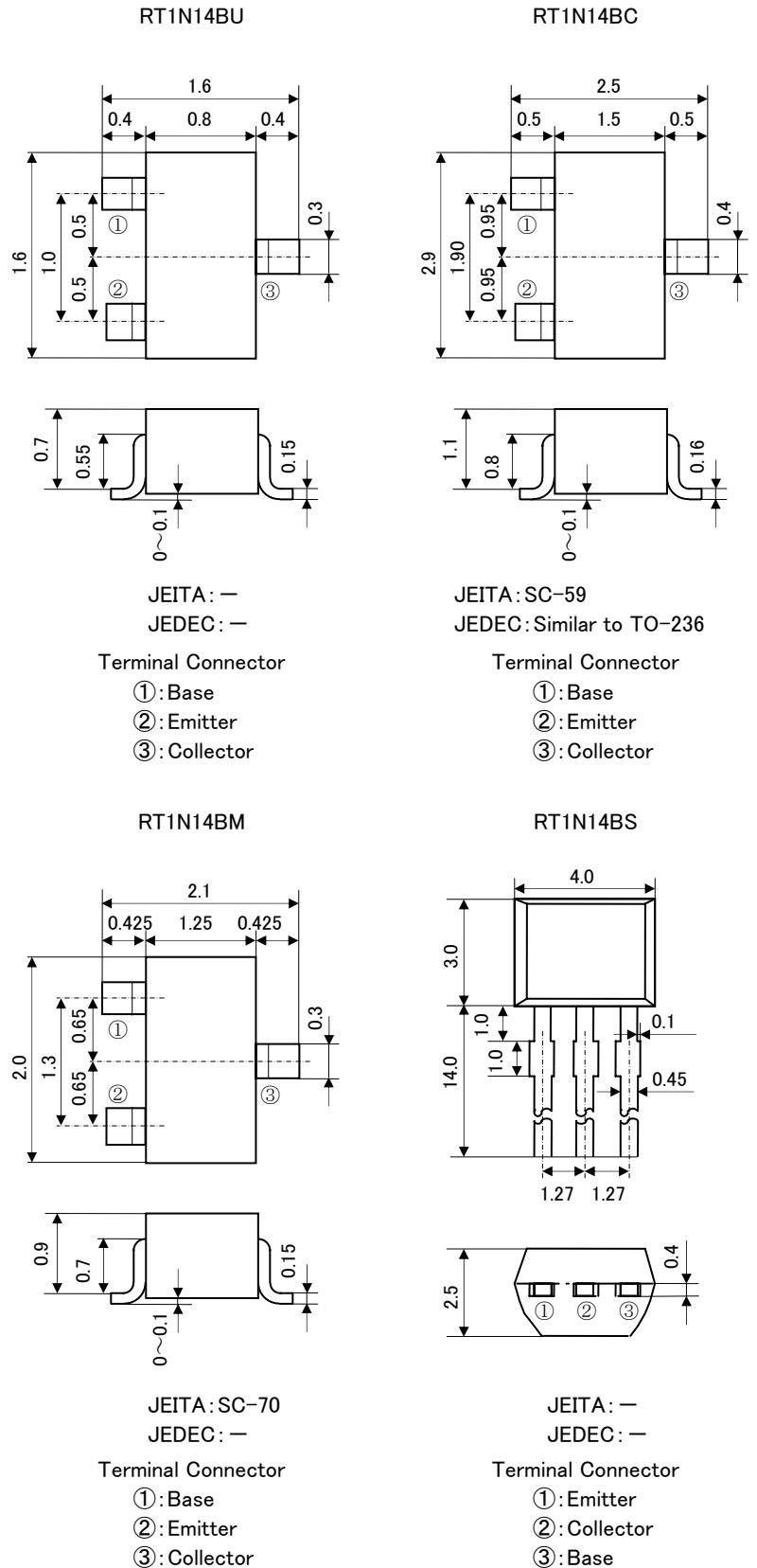
- Built-in bias resistor ( $R2=10k\Omega$ ).

## APPLICATION

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



## OUTLINE DRAWING UNIT : mm



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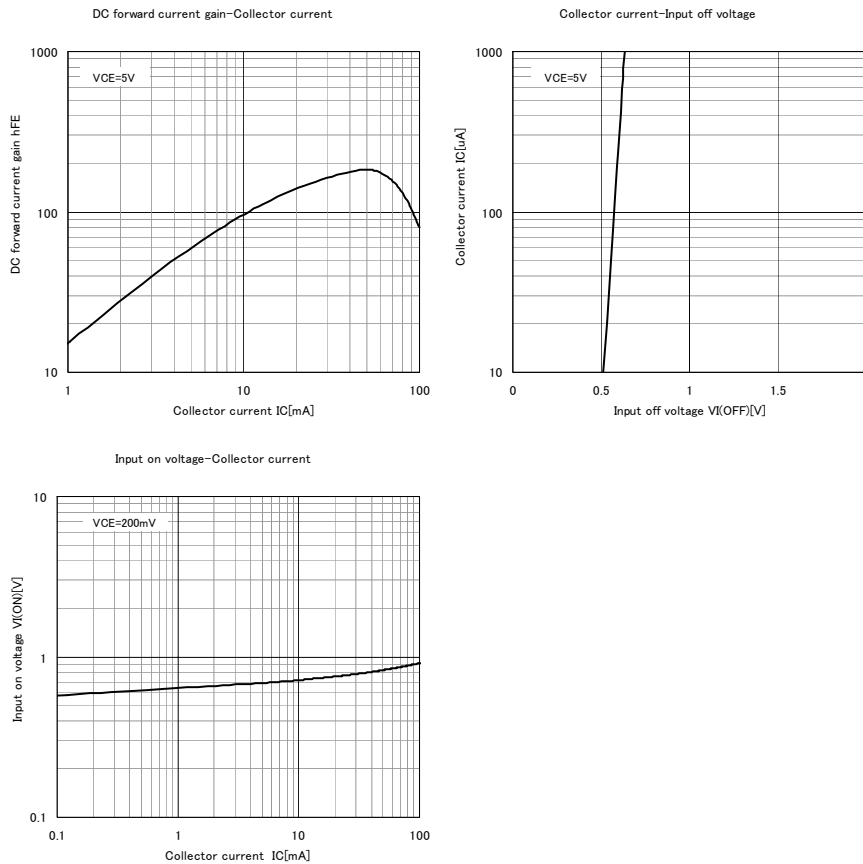
## MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING				UNIT
		RT1N14BU	RT1N14BM	RT1N14BC	RT1N14BS	
$V_{CBO}$	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	+150			°C
$T_{stg}$	Storage temperature	-55~+150		-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	$I_C=100\mu A, R_{BE}=\infty$	50			V
$I_{CBO}$	Collector cut off current	$V_{CB}=50V, I_E=0$			0.1	$\mu A$
$h_{FE}$	DC forward current gain	$V_{CE}=5V, I_C=5mA$	30			—
$V_{CE(sat)}$	C to E saturation voltage	$I_C=10mA, I_B=0.5mA$			0.3	V
$R_2$	Emitter-base resistance		7	10	13	$k\Omega$
$f_T$	Gain band width product	$V_{CE}=6V, I_E=-10mA$		200		MHz

## TYPICAL CHARACTERISTICS





*Marketing division, Marketing planning department*

6-41 Tsukuba, Isahaya, Nagasaki, 854-0065 Japan

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