

# RT1P150X SERIES

<Transistor>

Transistor With Resistor  
For Switching Application  
Silicon PNP Epitaxial Type

## DESCRIPTION

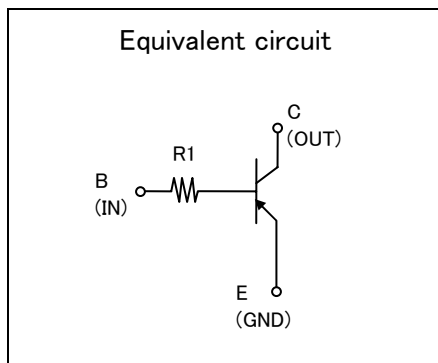
RT1P150X is a one chip transistor with built-in bias resistor, NPN type is RT1N150X.

## FEATURE

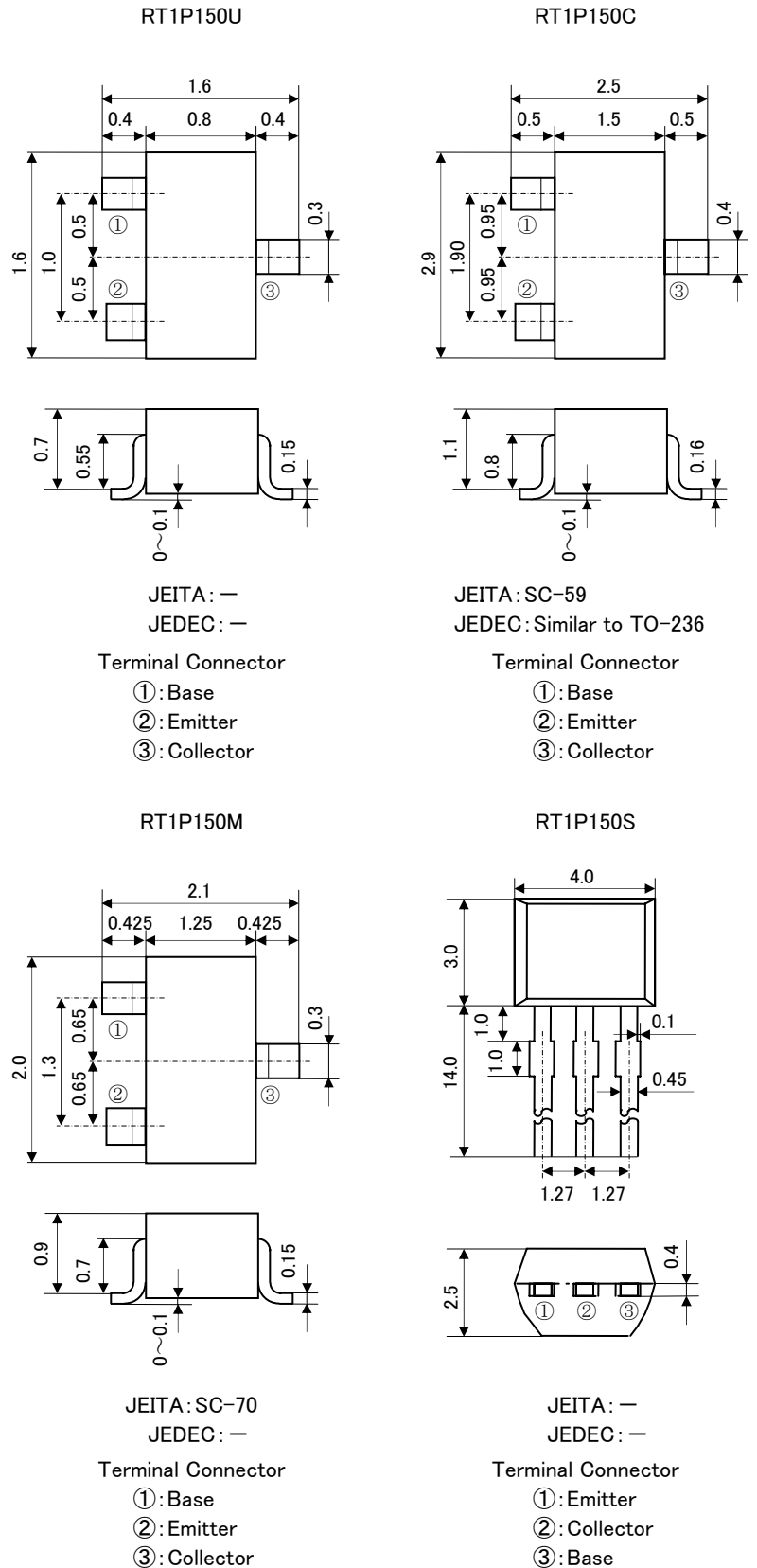
- Built-in bias resistor (R1=100kΩ).

## APPLICATION

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



## OUTLINE DRAWING UNIT : mm



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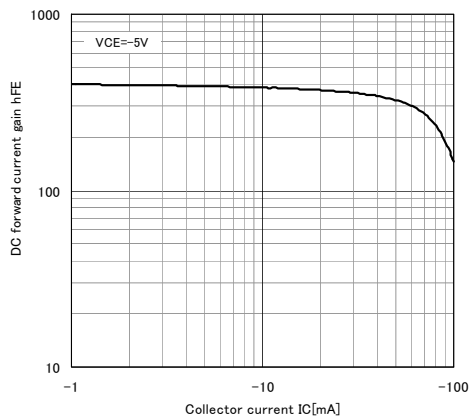
## MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING				UNIT
		RT1P150U	RT1P150M	RT1P150C	RT1P150S	
$V_{CBO}$	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

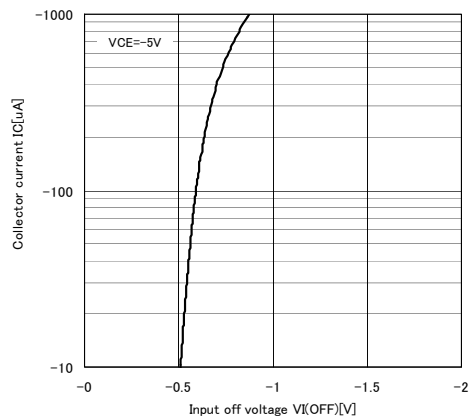
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

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	$V_{CE} = -5V, I_C = -1mA$	100			—
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -1mA, I_B = -0.1mA$			-0.3	V
$R_1$	Input resistance			100		$k\Omega$
$f_T$	Gain band width product	$V_{CE} = -6V, I_E = 10mA$		150		MHz

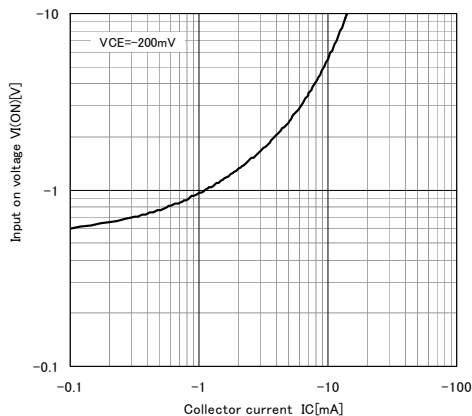
DC forward current gain-Collector current



Collector current-Input off voltage



Input on voltage-Collector current





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**Keep safety first in your circuit designs!**

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