

# RT1P44BX SERIES

〈Transistor〉

Transistor With Resistor

For Switching Application

Silicon PNP Epitaxial Type

## DESCRIPTION

RT1P44BX is a one chip transistor with built-in bias resistor, NPN type is RT1N44BX.

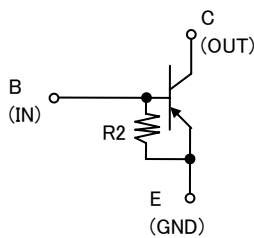
## FEATURE

- Built-in bias resistor ( $R_2=47k\Omega$ ).

## APPLICATION

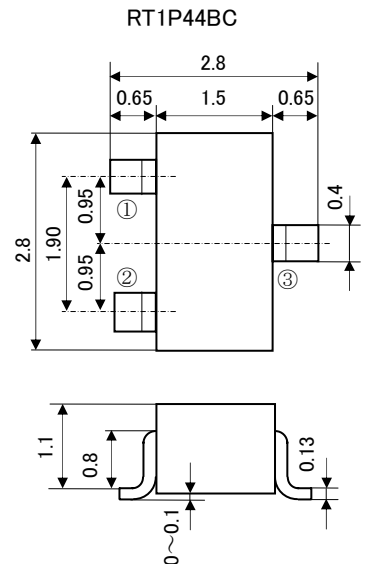
. Inverted circuit, switching circuit, interface circuit, driver circuit.

Equivalent circuit



## OUTLINE DRAWING

UNIT : mm



JEITA : SC-59

JEDEC : Similar to TO-236

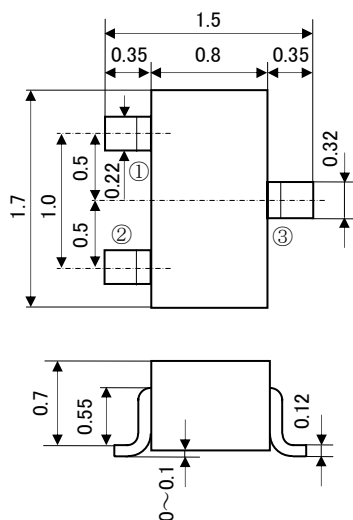
Terminal Connector

① : Base

② : Emitter

③ : Collector

RT1P44BU



JEITA : SC-75A

JEDEC : —

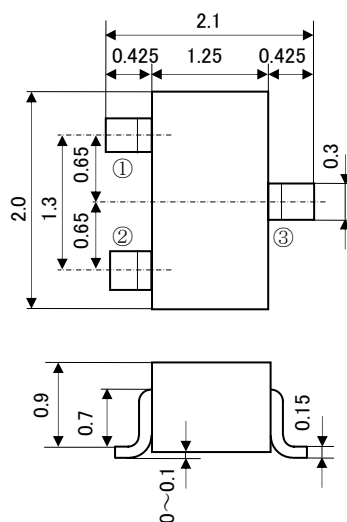
Terminal Connector

① : Base

② : Emitter

③ : Collector

RT1P44BM



JEITA : SC-70

JEDEC : —

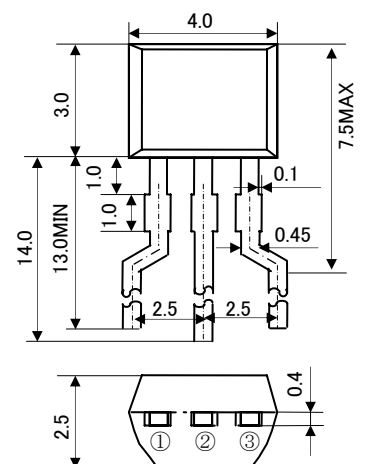
Terminal Connector

① : Base

② : Emitter

③ : Collector

RT1P44BS



JEITA : —

JEDEC : —

Terminal Connector

① : Emitter

② : Collector

③ : Base

# RT1P44BX SERIES

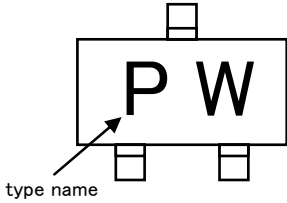
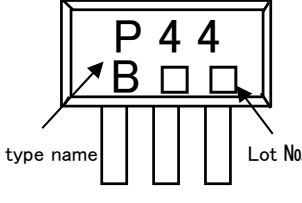
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## MARKING

RT1P44BC RT1P44BM RT1P44BU	RT1P44BS
	

## MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING				UNIT
		RT1P44BU	RT1P44BM	RT1P44BC	RT1P44BS	
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	
$V_{(BR)CEO}$	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	$\mu A$
$I_{EBO}$	Emitter cut off current	$V_{EB} = -5V, I_C = 0$	-80	-106	-154	$\mu A$
$h_{FE}$	DC forward current gain	$V_{CE} = -5V, I_C = -5mA$	68	—	—	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -10mA, I_B = -0.5mA$	—	—	-0.3	V
$R_2$	Emitter-base resistor	—	33	47	61	k $\Omega$
$f_T$	Gain band width product	$V_{CE} = -6V, I_E = 10mA$	—	150	—	MHz

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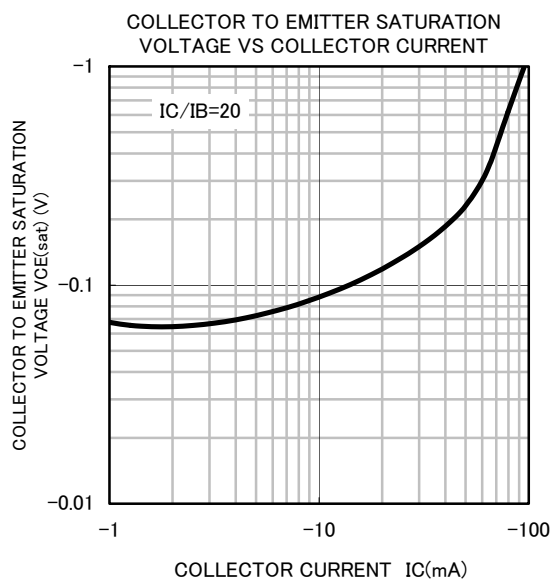
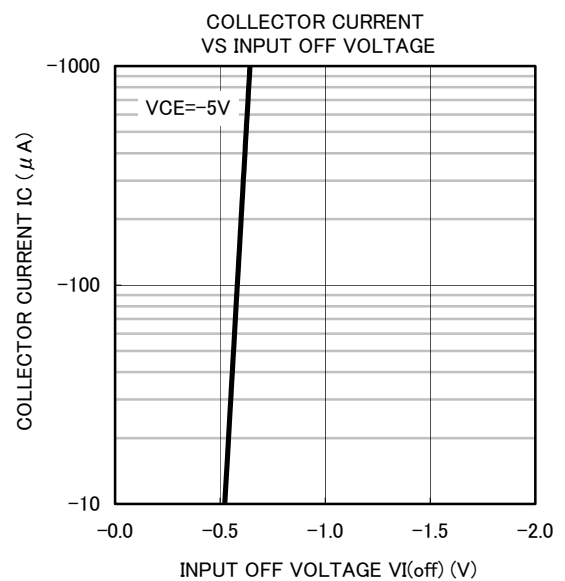
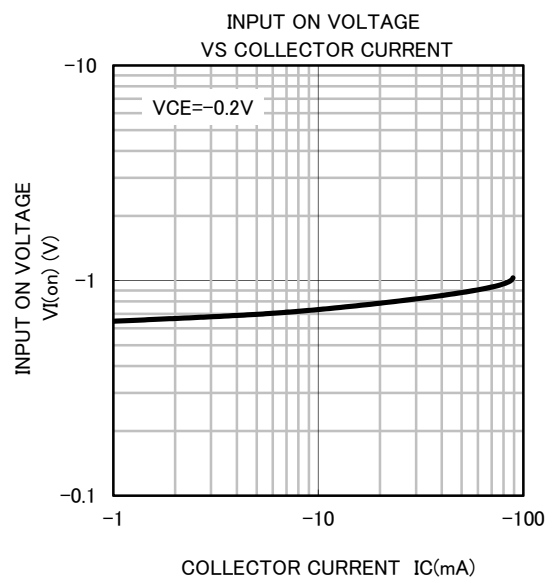
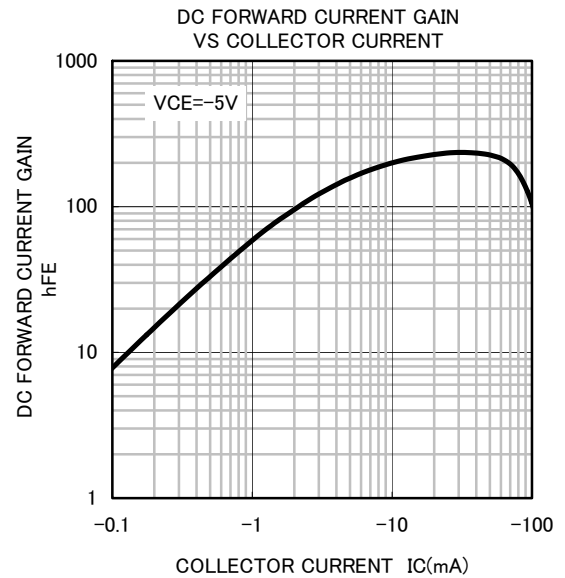
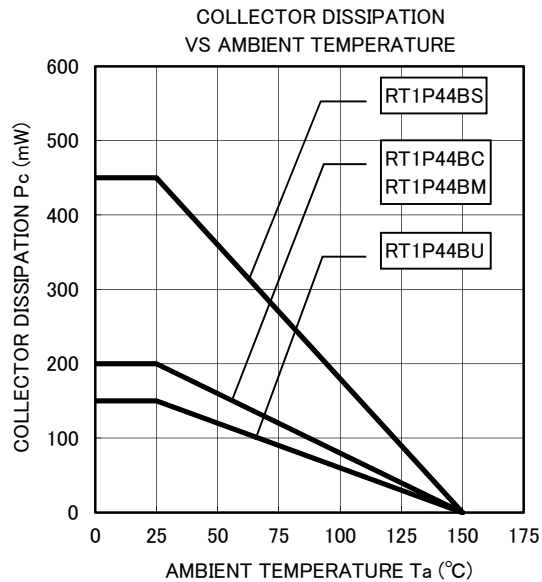
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## TYPICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )





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

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