# RT1N44HX SERIES

Transistor Transistor With Resistor For Switching Application Silicon NPN Epitaxial Type

RT1N44HC

2.5

UNIT: mm

## DESCRIPTION

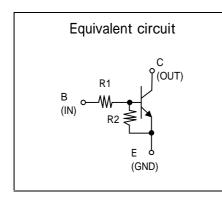
RT1N44HX is a one chip transistor with built-in bias resistor,PNP type is RT1P44HX.

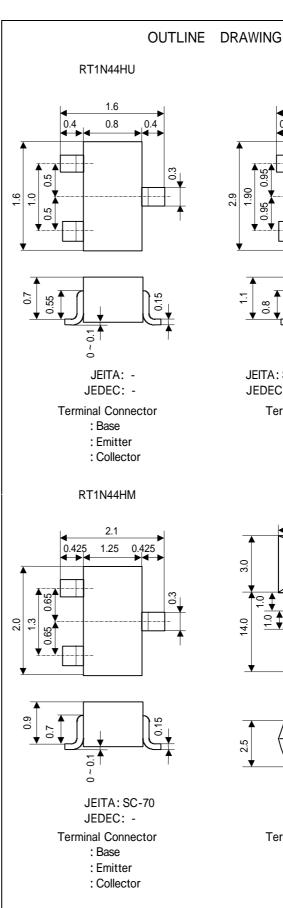
## FEATURE

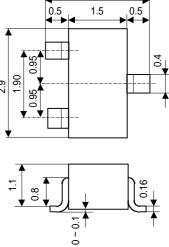
•Built-in bias resistor (R1=47k ,R2=22k ).

## **APPLICATION**

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







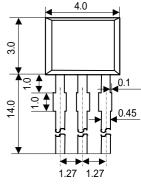
JEITA: SC-59 JEDEC: Similar to TO-236

Terminal Connector



- : Emitter
- : Collector

## RT1N44HS





JEITA: -JEDEC: -Terminal Connector : Emitter : Collector : Base

## ISAHAYA ELECTRONICS CORPORATION

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## MAXIMUM RATING (Ta=25)

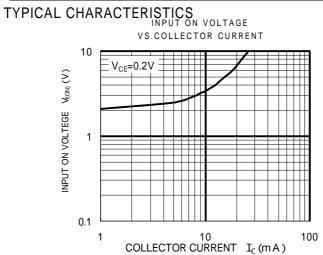
SYMBOL	PARAMETER	RATING				UNIT
		RT1N44HU	RT1N44HM	RT1N44HC	RT1N44HS	
V <sub>CBO</sub>	Collector to Base voltage	50				
V <sub>EBO</sub>	Emitter to Base voltage	10				
V <sub>CEO</sub>	Collector to Emitter voltage	50				
I <sub>c</sub>	Collector current	100				
I <sub>CM</sub>	Peak Collector current	200				
Pc	Collector dissipation(Ta=25)	150	20	0	450	mW
Tj	Junction temperature	+150 +150				
Tstg	Storage temperature	-55 ~ +150	-55 ~ +150			

## ELECTRICAL CHARACTERISTICS (Ta=25)

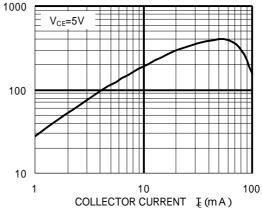
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
		TEST CONDITION	MIN	TYP	MAX	UNIT
V <sub>(BR)CEO</sub>	C to E break down voltage	Ι <sub>c</sub> =100 μ A , R <sub>BE</sub> =	50			V
I <sub>CBO</sub>	Collector cut off current	V <sub>CB</sub> =50V , I <sub>E</sub> =0			0.1	μA
h <sub>FE</sub>	DC forward current gain	$V_{CE}$ =5V , I <sub>C</sub> =5mA	56			-
$V_{CE(sat)}$	C to E saturation voltage	I <sub>c</sub> =10mA , I <sub>B</sub> =0.5mA			0.3	V
V <sub>I(ON)</sub>	Input on voltage	V <sub>CE</sub> =0.2V , I <sub>C</sub> =5mA		2.6	6.3	V
V <sub>I(OFF)</sub>	Input off voltage	$V_{CE}$ =5V , I <sub>C</sub> =100 $\mu$ A	1.3	1.7		V
R <sub>1</sub>	Input resistance		33	47	61	k
$R_2 / R_1$	Resistance ratio		0.37	0.47	0.57	
f <sub>T</sub>	Gain band width product	$V_{CE}=6V$ , I <sub>E</sub> =-10mA		200		MHz

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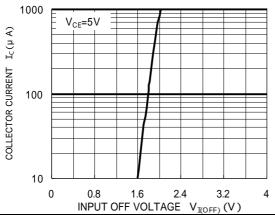
DC FORWARD CURRENT GAIN











**ELECTRONICS CORPORATION ISAHAYA** 



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