

# RT3T14M

Composite Transistor With Resistor  
For Switching Application  
Silicon Epitaxial Type

## DESCRIPTION

RT3T14M is a composite transistor built with RT1N144 chip and RT1P144 chip in SC-88 package.

## FEATURE

- Silicon epitaxial type
- Each transistor elements are independent.
- Mini package for easy mounting

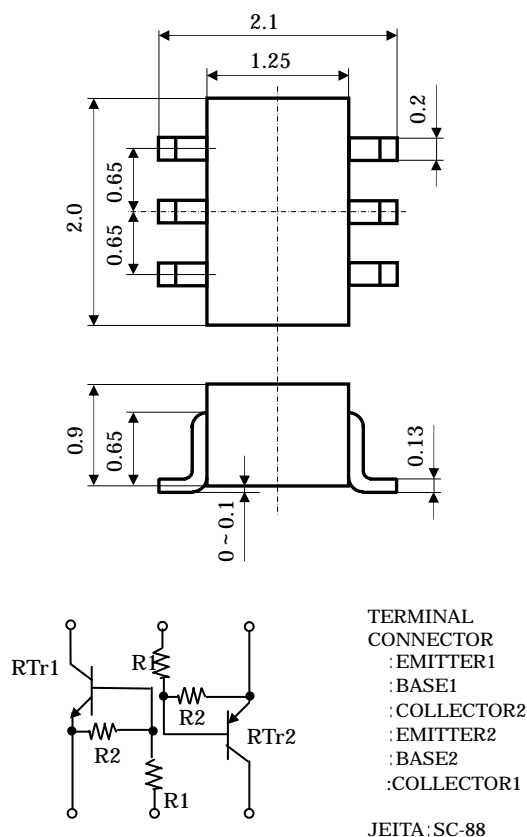
## APPLICATION

- Inverted circuit, switching circuit,
- interface circuit, driver circuit

PNP built in transistor of " - " sign is abbreviation.

## OUTLINE DRAWING

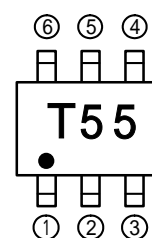
Unit: mm



## MAXIMUM RATING (Ta=25 )

SYMBOL	PARAMETER	RATING	UNIT
VCBO	Collector to Base voltage	50	V
VEBO	Emitter to Base voltage	6	V
VCEO	Collector to Emitter voltage	50	V
IC	Collector current	100	mA
ICM	Peak Collector current	200	mA
PC	Collector dissipation (Total, Ta=25 )	150	mW
Tj	Junction temperature	+ 150	
Tstg	Storage temperature	-55 ~ + 150	

## MARKING



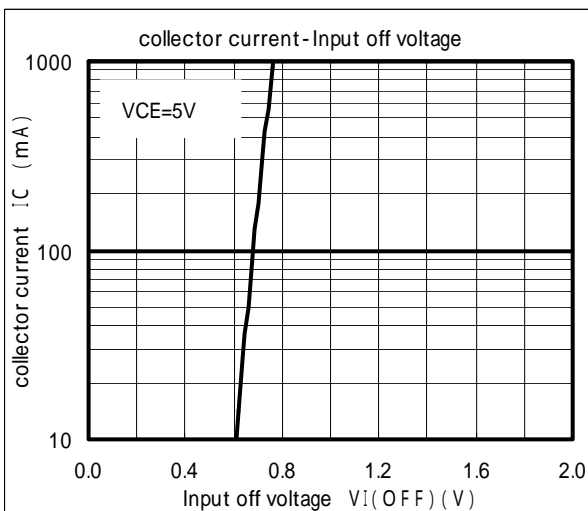
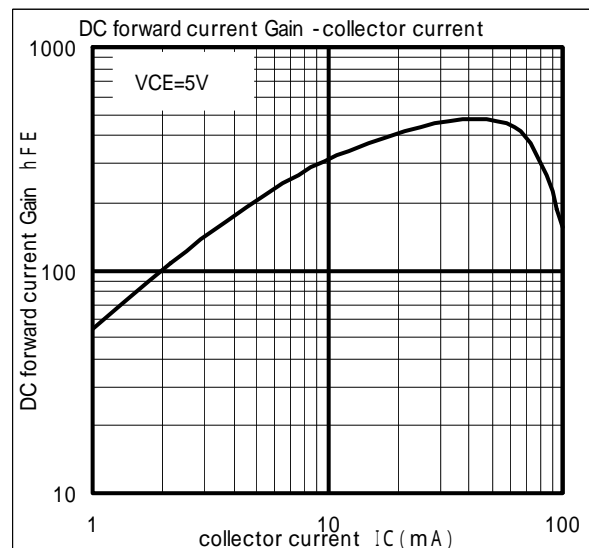
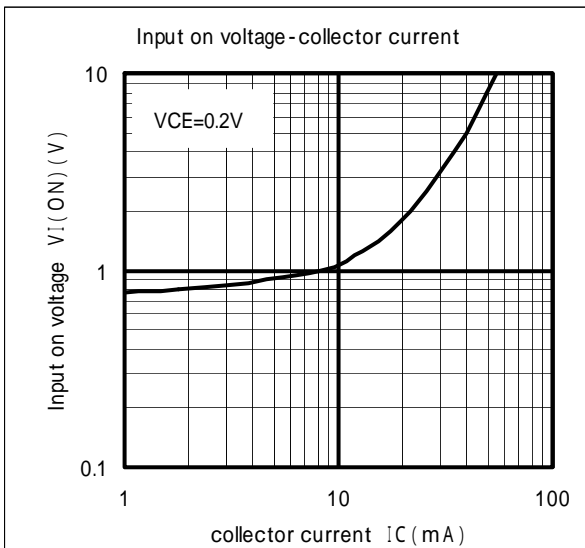
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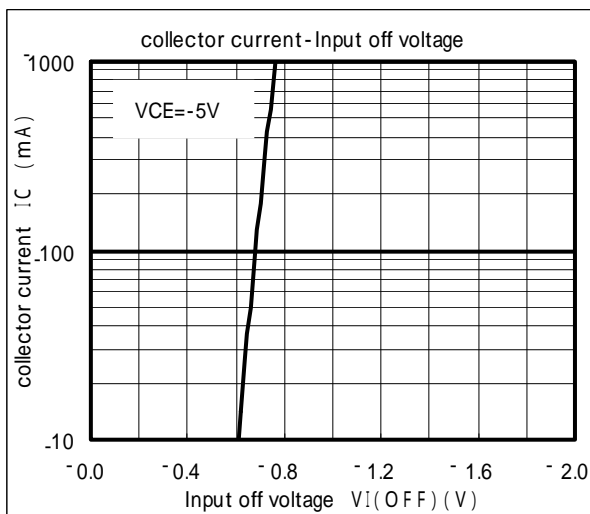
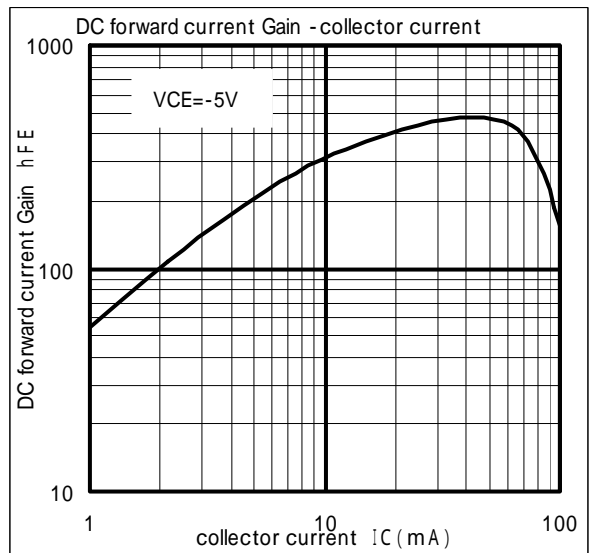
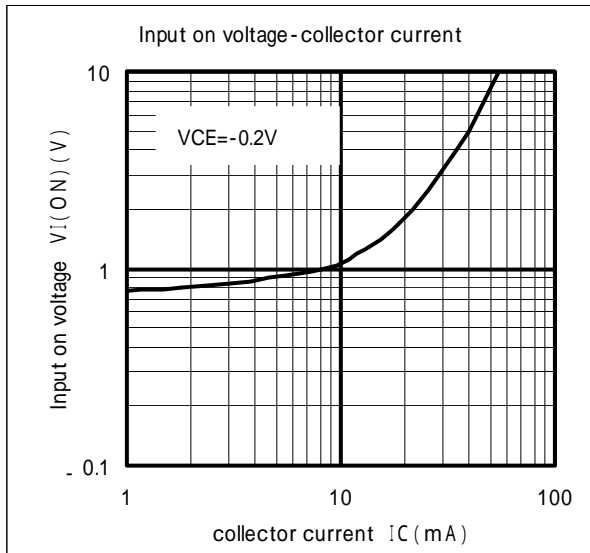
## ELECTRICAL CHARACTERISTICS (Ta=25 )

Symbol	Parameter	Test conditions	Limits			Unit	
			Min	Typ	Max		
V <sub>(BR)CEO</sub>	Collector to Emitter break down voltage	I <sub>C</sub> =100 μA, 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 <sub>CE</sub> =5V, I <sub>C</sub> =5mA	50	-	-	-	
V <sub>CE(sat)</sub>	Collector to Emitter saturation voltage	I <sub>C</sub> =10mA, I <sub>B</sub> =5mA	-	0.1	0.3	V	
V <sub>I(ON)</sub>	Input on voltage	V <sub>CE</sub> =0.2V, I <sub>C</sub> =5mA	-	1.0	1.8	V	
V <sub>I(OFF)</sub>	Input off voltage	V <sub>CE</sub> =5V, I <sub>C</sub> =100 μA	0.4	0.7	-	V	
R <sub>1</sub>	Input resistor	-	7	10	13	k	
R <sub>2</sub> /R <sub>1</sub>	Resistor ratio	-	4.2	4.7	5.1	-	
f <sub>T</sub>	Gain band width product	V <sub>CE</sub> =6V, I <sub>E</sub> =-10mA	Tr1	-	200	-	MHz
			Tr2	-	150	-	

## TYPICAL CHARACTERISTICS (Tr1)



**TYPICAL CHARACTERISTICS (Tr2)**





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