

# RT3TFFM

Composite Transistor With Resistor  
For Switching Application  
Silicon Epitaxial Type

## DESCRIPTION

RT3TFFM is compound transistor built with RT1N431 chip and RT1P431 chip in SC-88 package.

## FEATURE

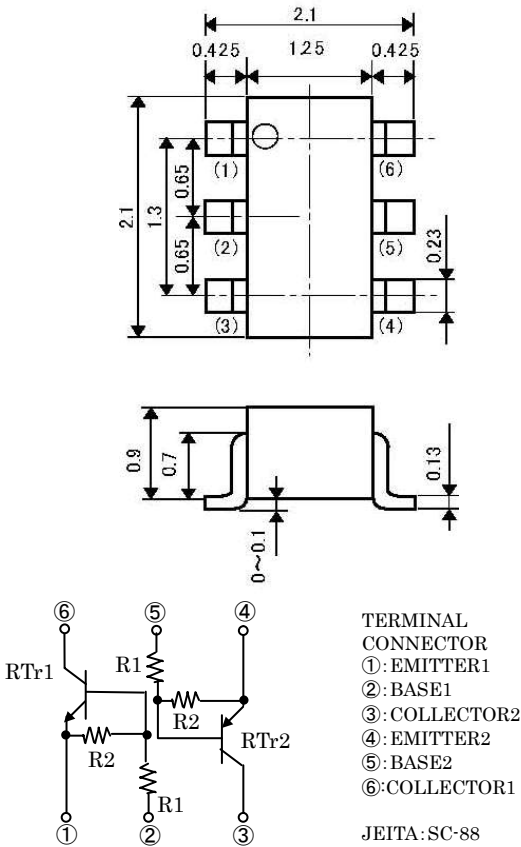
- Silicon epitaxial type
- Each transistor elements are independent.
- Mini package for easy mounting

## APPLICATION

Inverted circuit, switching circuit,  
interface circuit, driver circuit

## OUTLINE DRAWING

Unit: mm

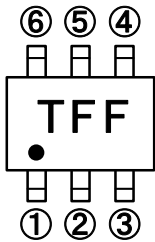


## MAXIMUM RATING (Ta=25°C) (RTr1\_NPN, RTr2\_PNP)

SYMBOL	PARAMETER	RATING	UNIT
VCBO	Collector to Base voltage	50	V
VEBO	Emitter to Base voltage	10	V
VCEO	Collector to Emitter voltage	50	V
VIN	Input voltage	30	V
IC	Collector current	100	mA
ICM	Peak Collector current	200	mA
PC	Collector dissipation(Total, Ta=25°C)	150	mW
Tj	Junction temperature	+150	°C
Tstg	Storage temperature	-55~+150	°C

※PNP built in transistor of “—” sign is abbreviation.

## MARKING



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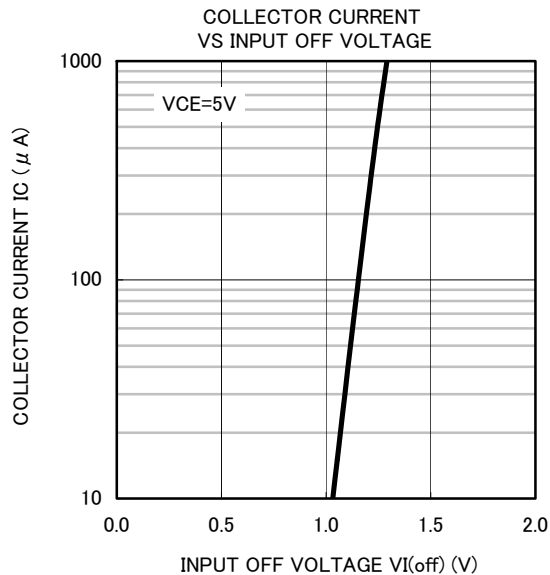
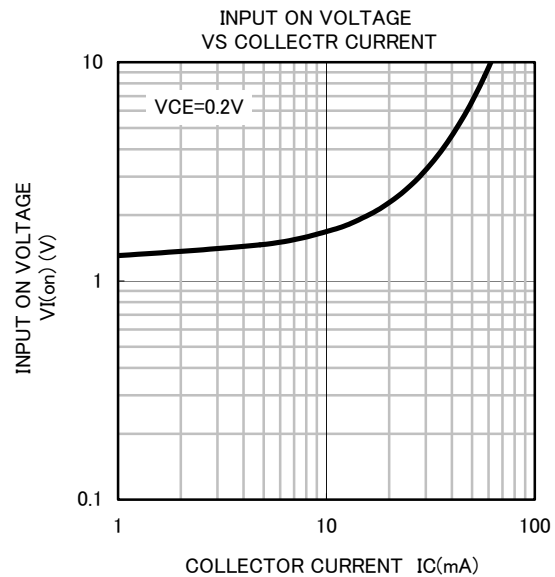
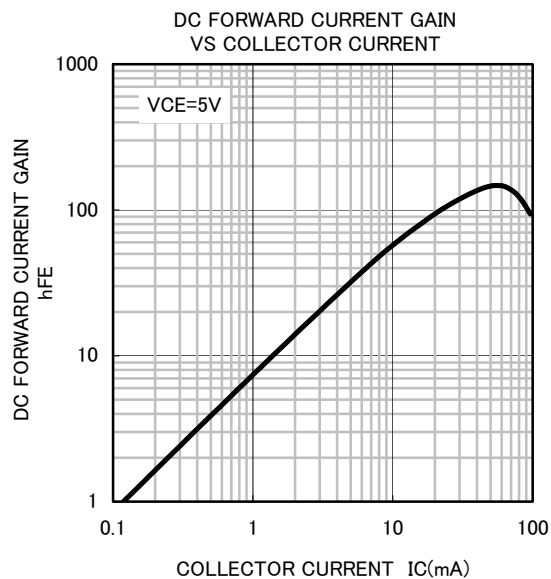
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## ELECTRICAL CHARACTERISTICS (Ta=25°C) (RTr1\_NPN, RTr2\_PNP)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V(BR)CEO	Collector to Emitter break down voltage	IC=100 $\mu$ A, RBE= $\infty$	50	-	-	V
ICBO	Collector cut off current	VCB=50V, IE=0	-	-	0.1	$\mu$ A
hFE	DC forward current gain	VCE=5V, IC=10mA	20	-	-	-
VCE(sat)	Collector to Emitter saturation voltage	IC=10mA, IB=0.5mA	-	-	0.3	V
VI(ON)	Input on voltage	VCE=0.2V, IC=5mA	-	1.4	2.3	V
VI(OFF)	Input off voltage	VCE=5V, IC=100 $\mu$ A	0.8	1.1	-	V
R1	Input resistor	-	3.3	4.7	6.1	k $\Omega$
R2/R1	Resistor ratio	-	0.8	1.0	1.2	-
fT	Gain band width product	VCE=6V, IE=10mA	RTr1	-	200	MHz
			RTr2	-	150	

※PNP built in transistor of “-” sign is abbreviation.

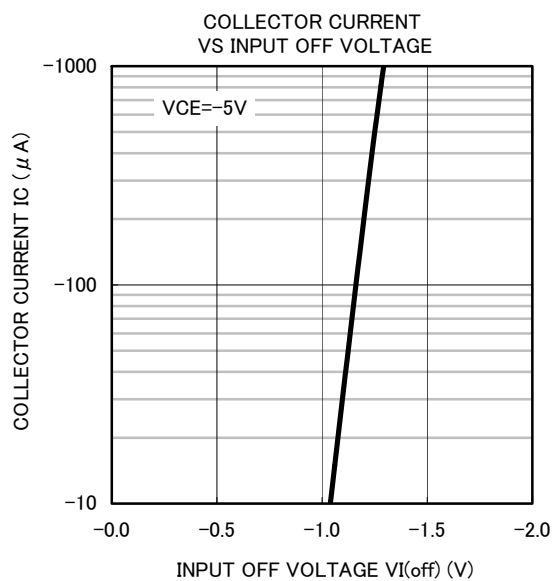
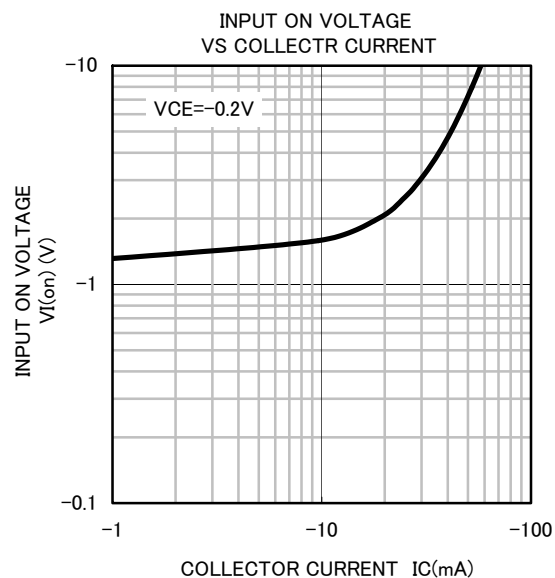
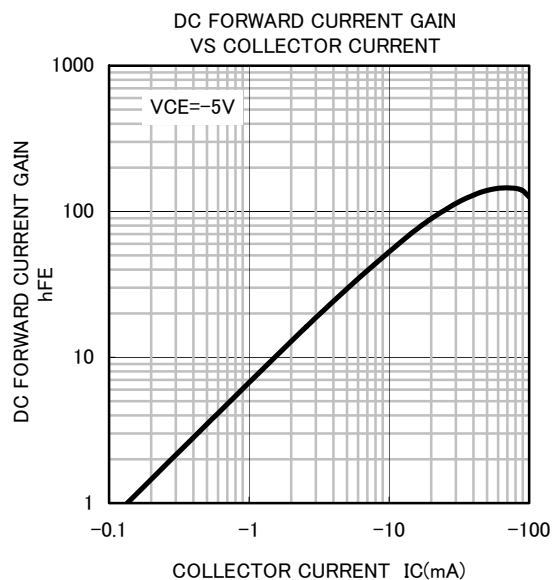
## TYPICAL CHARACTERISTICS (RTr1\_NPN)



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## TYPICAL CHARACTERISTICS (RT<sub>r2</sub>\_PNP)





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