

RT3TBBM

Composite Transistor With Resistor
For Switching Application
Silicon Epitaxial Type

DESCRIPTION

RT3TBBM is compound transistor built with RT1N231 chip and RT1P231 chip in SC-88 package.

FEATURE

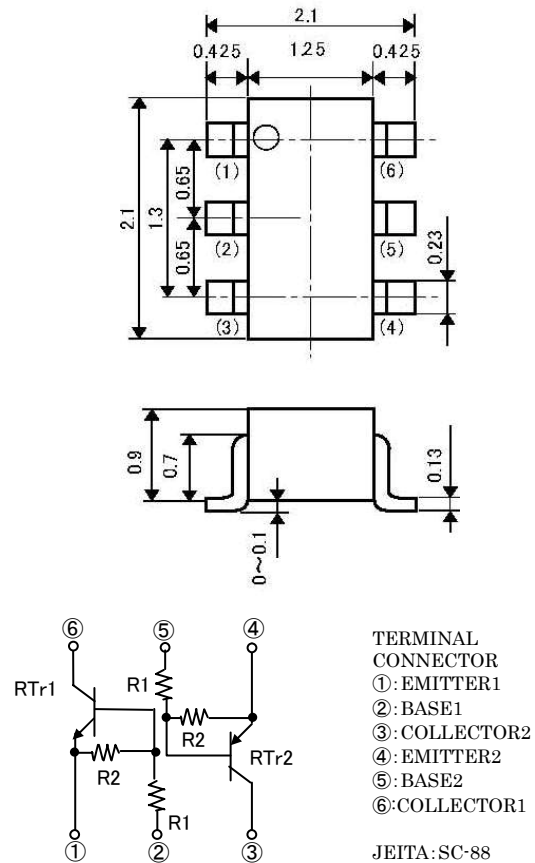
- Silicon epitaxial type
- Each transistor elements are independent.
- Mini package for easy mounting

APPLICATION

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

OUTLINE DRAWING

Unit: mm

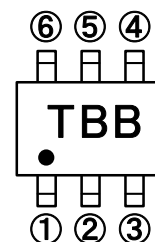


MAXIMUM RATING (Ta=25°C) (RTr1_NPN, RTr2_PNP)

SYMBOL	PARAMETER	RATING	UNIT
V _{CB0}	Collector to Base voltage	50	V
V _{EB0}	Emitter to Base voltage	10	V
V _{CEO}	Collector to Emitter voltage	50	V
V _{IN}	Input voltage	12	V
I _C	Collector current	100	mA
I _{CM}	Peak Collector current	200	mA
P _C	Collector dissipation (Total, Ta=25°C)	150	mW
T _j	Junction temperature	+150	°C
T _{stg}	Storage temperature	-55~+150	°C

※PNP built in transistor of "—" sign is abbreviation.

MARKING



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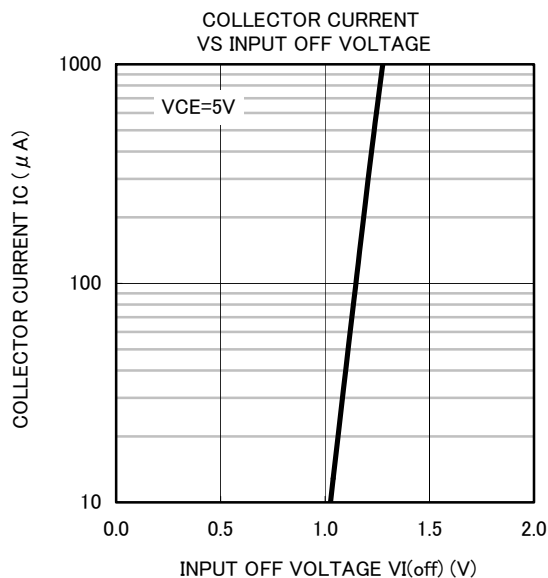
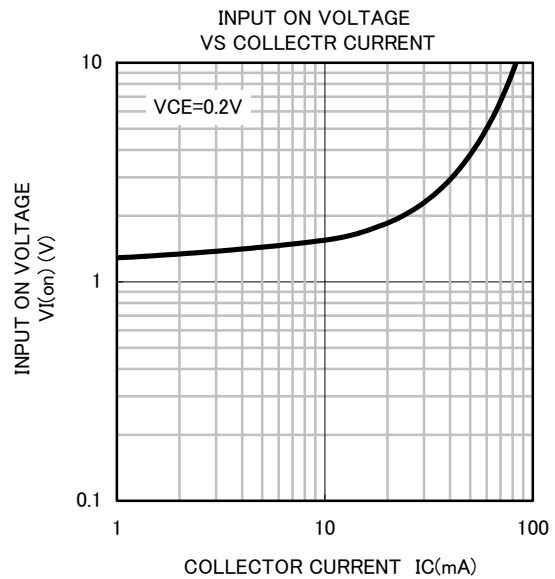
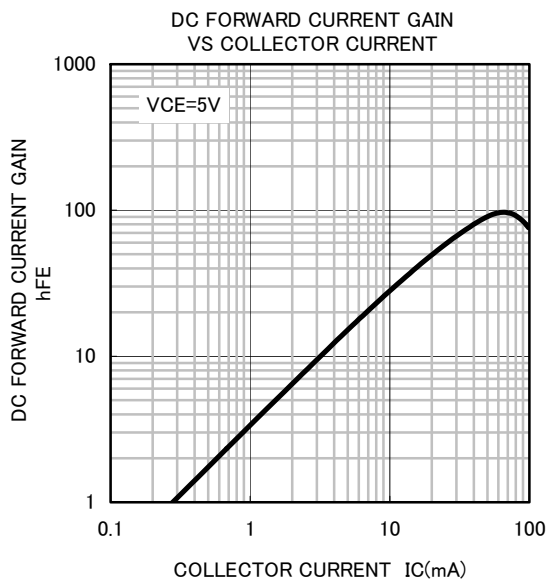
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ELECTRICAL CHARACTERISTICS (Ta=25°C) (RTr1_NPN, RTr2_PNP)

Symbol	Parameter	Test conditions	Limits			Unit	
			MAX	TYP	MIN		
V(BR)CEO	Collector to Emitter break down voltage	I _C =100μA, R _{BE} =∞	50	—	—	V	
ICBO	Collector cut off current	V _{CB} =50V, I _E =0mA	—	—	0.1	μA	
hFE	DC forward current gain	V _{CE} =5V, I _C =20mA	20	—	—	—	
VCE(sat)	Collector to Emitter saturation voltage	I _C =10mA, I _B =0.5mA	—	—	0.3	V	
VI(ON)	Input on voltage	V _{CE} =0.2V, I _C =5mA	—	1.3	2.2	V	
VI(OFF)	Input off voltage	V _{CE} =5V, I _C =100μA	0.7	1.1	—	V	
R1	Input resistor		1.5	2.2	2.9	KΩ	
R2/R1	Resistor ratio		0.8	1.0	1.2	—	
f _T	Gain band width product	V _{CE} =6V, I _E =10mA	RTr1	—	200	—	MHz
			RTr2	—	150	—	

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

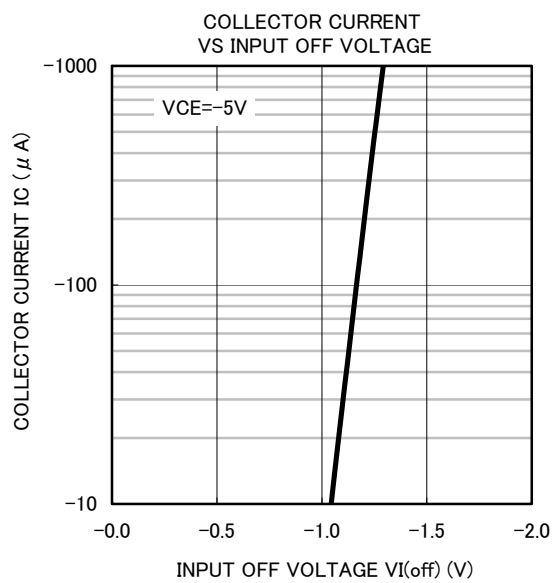
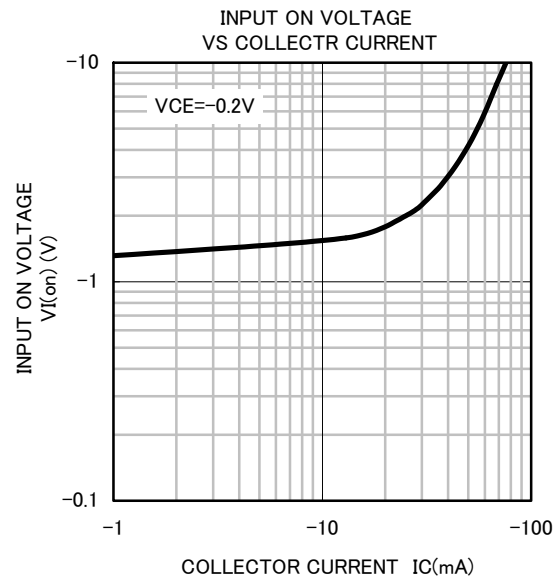
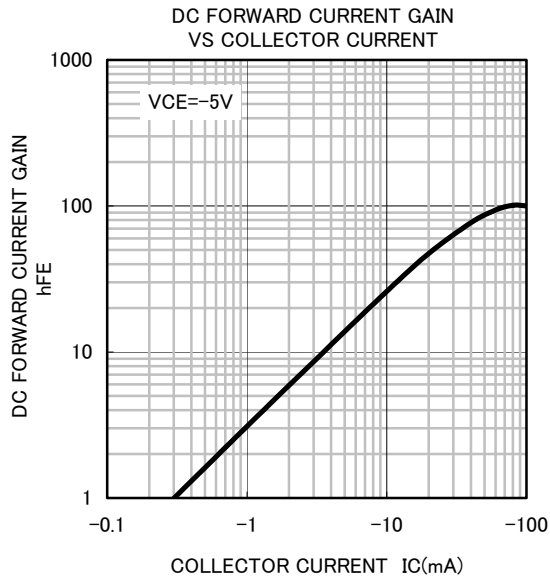
TYPICAL CHARACTERISTICS (RTr1_NPN)



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TYPICAL CHARACTERISTICS (RTr2_PNP)





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