RT3TDDM

Composite Transistor With Resistor
For Switching Application
Silicon Epitaxial Type

DESCRIPTION

RT3TBBM is compound transistor built with RT1N237 chip and RT1P237 chip in SC-88 package.

FEATURE

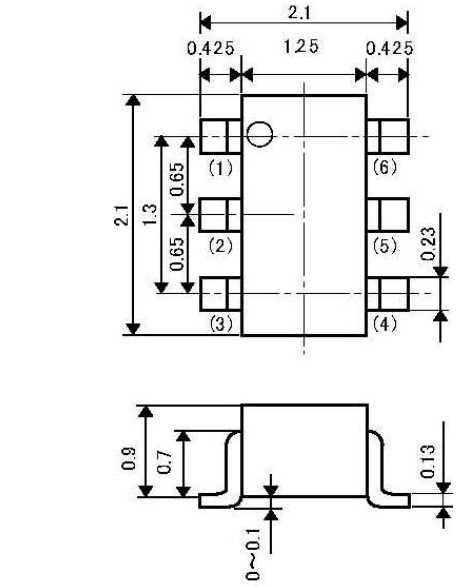
Silicon epitaxial type
Each transistor elements are independent.
Mini package for easy mounting

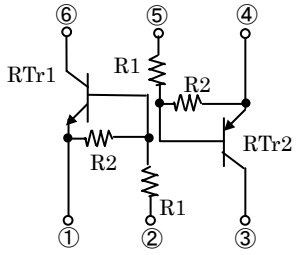
APPLICATION

Inverted circuit, switching circuit,
interface circuit, driver circuit

OUTLINE DRAWING

Unit : mm





TERMINAL CONNECTOR
①: EMITTER1
②: BASE1
③: COLLECTOR2
④: EMITTER2
⑤: BASE2
⑥: COLLECTOR1

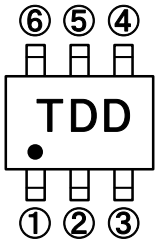
JEITA: SC-88

MAXIMUM RATING (Ta=25℃) (RTr1_NPN, RTr2_PNP)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	50	V
V_{EBO}	Emitter to Base voltage	6	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℃)	150	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	-55～+150	℃

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

MARKING



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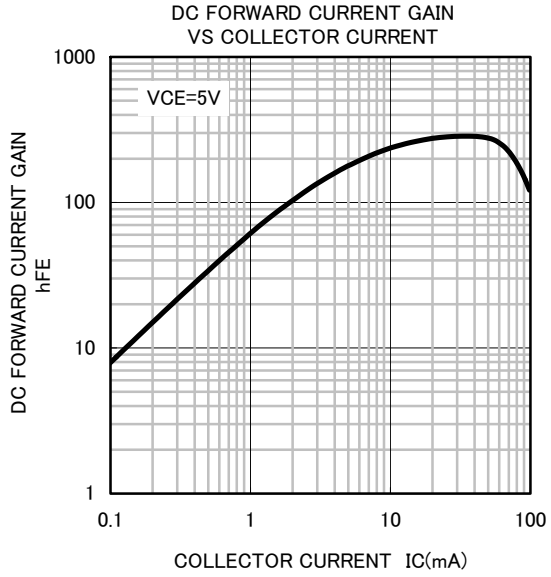
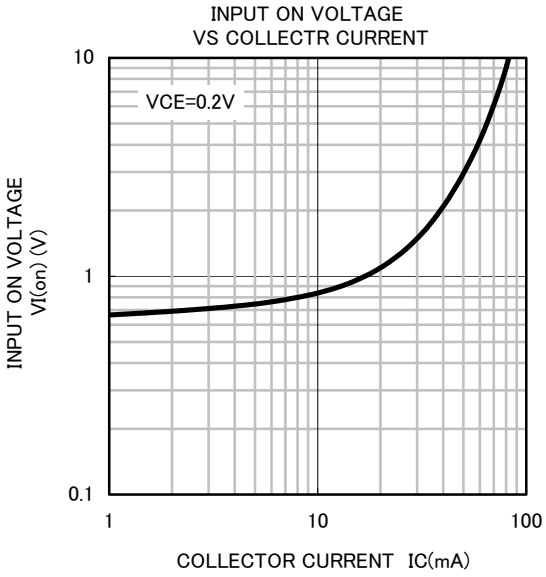
ELECTRICAL CHARACTERISTICS (Ta=25℃) (RTr1_NPN, RTr2_PNP)

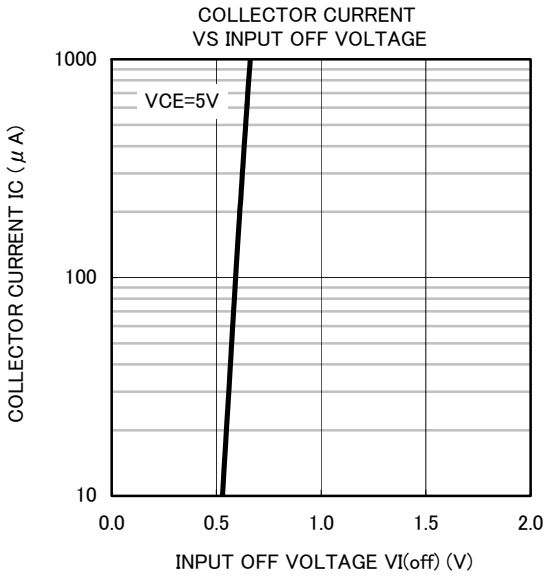
Symbol	Parameter	Test conditions		Limits			Unit
				MAX	TYP	MIN	
$V_{(BR)CEO}$	Collector to Emitter break down voltage	I_C=100μA, R_{BE}=∞		50	−	−	V
I_{CBO}	Collector cut off current	V_{CB}=50V, I_E=0mA		−	−	0.1	μA
h_{FE}	DC forward current gain	V_{CE}=5V, I C=10mA		80	−	−	-
$V_{CE(sat)}$	Collector to Emitter saturation voltage	I_C=10mA, I_B=0. 5mA		−	−	0.3	V
$V_{I(ON)}$	Input on voltage	V_{CE}=0.2V, I_C=5mA		−	0.7	1.1	V
$V_{I(OFF)}$	Input off voltage	V_{CE}=5V, I_C=100μA		0.5	0.6	−	V
R_1	Input resistor	−		1.5	2.2	2.9	KΩ
R_2/R_1	Resistor ratio	−		−	22	−	−
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.

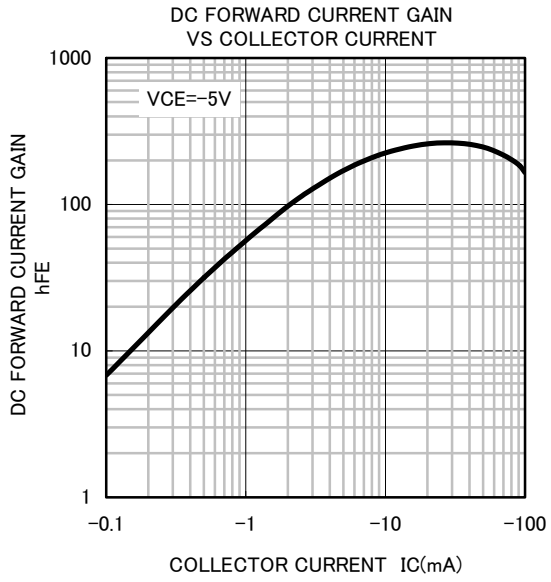
TYPICAL CHARACTERISTICS (RTr1_NPN)

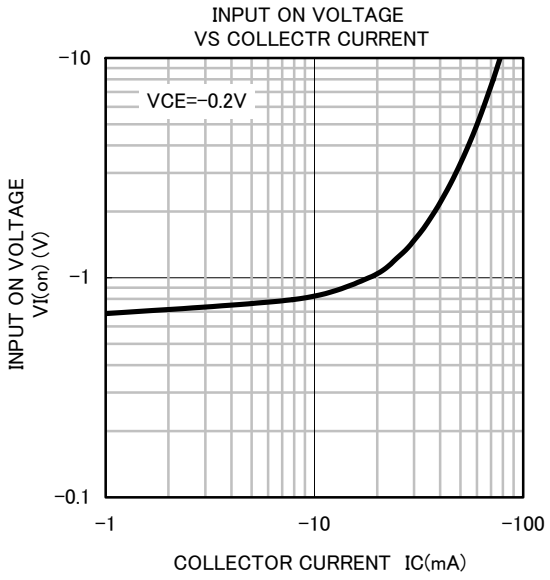


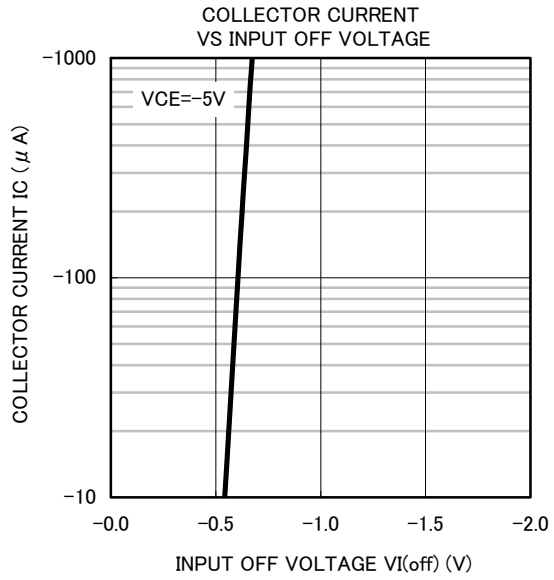




TYPICAL CHARACTERISTICS (RTr2_PNP)







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