

# RT3NGGM

Composite Transistor With Resistor  
For Switching Application  
Silicon NPN Epitaxial Type

## DESCRIPTION

RT3NGGM is a composite transistor built with two RT1N432 chips in SC-88 package.

## FEATURE

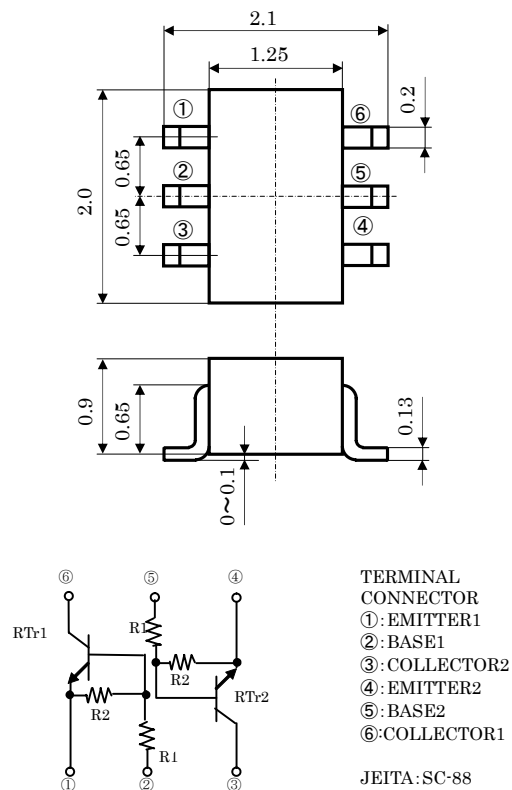
- Silicon NPN epitaxial type.
- Built in bias resistor.
- Each transistor elements are independent.
- Mini package for easy mounting

## APPLICATION

Inverted circuit, switching circuit,  
interface circuit, driver circuit

## OUTLINE DRAWING

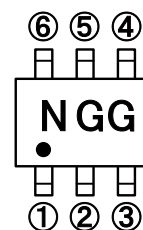
Unit: mm



## MAXIMUM RATING (Ta=25°C) (The characteristics apply to both Tr1 and Tr2.)

SYMBOL	PARAMETER	RATING	UNIT
VCBO	Collector to Base voltage	50	V
VEBO	Emitter to Base voltage	7	V
VCEO	Collector to Emitter voltage	50	V
VIN	Input voltage	20	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

## MARKING



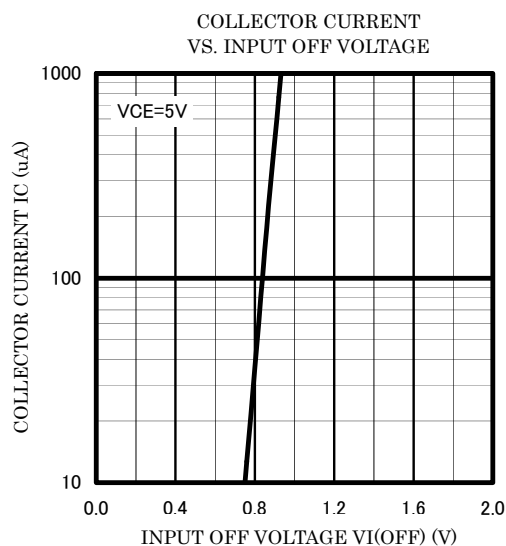
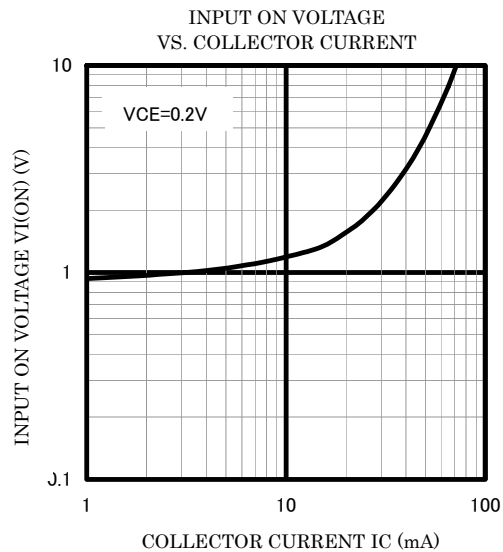
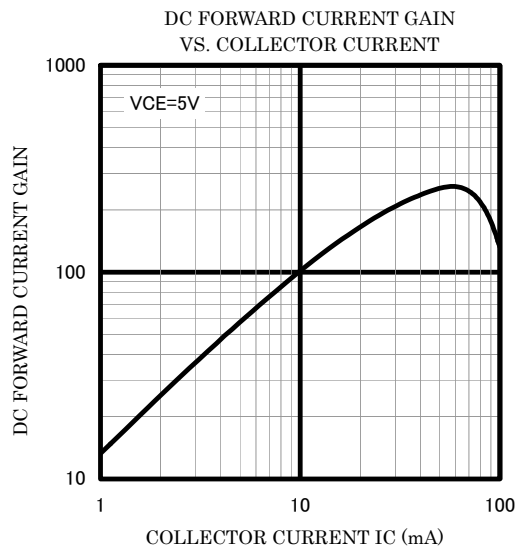
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## ELECTRICAL CHARACTERISTICS (Ta=25°C) (The characteristics apply to both Tr1 and Tr2.)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V(BR)CEO	Collector to Emitter break down voltage	$I_C=100\mu A, R_{BE}=\infty$	50			V
ICBO	Collector cut off current	$V_{CB}=50V, I_E=0$			0.1	$\mu A$
hFE	DC forward current gain	$V_{CE}=5V, I_C=10mA$	30			-
VCE(sat)	Collector to Emitter saturation voltage	$I_C=10mA, I_B=0.5mA$		0.1	0.3	V
VI(ON)	Input on voltage	$V_{CE}=0.2V, I_C=5mA$		1.0	1.8	V
VI(OFF)	Input off voltage	$V_{CE}=5V, I_C=100\mu A$	0.5	0.8		V
R1	Input resistor		3.3	4.7	6.1	K $\Omega$
R2/R1	Resistor ratio		1.7	2.1	2.6	-
fT	Gain band width product	$V_{CE}=6V, I_E=-10mA$		200		MHz

## TYPICAL CHARACTERISTICS (Tr1, Tr2)





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