

RT3NDDM

Composite Transistor With Resistor
For Switching Application
Silicon NPN Epitaxial Type

DESCRIPTION

RT3NDDM is a composite transistor built with two RT1N237 chips in SC-88 package.

FEATURE

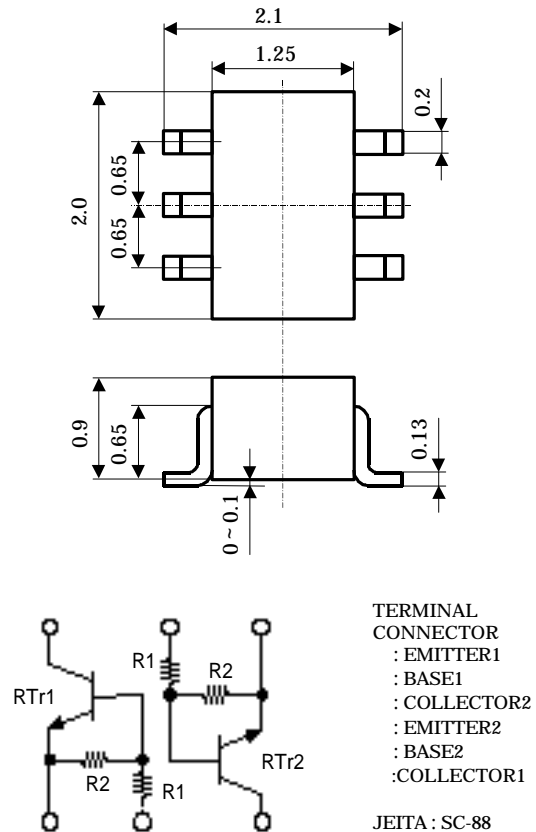
Silicon NPN epitaxial type
Built in bias resistor ($R1=2.2k$, $R2=47k$)
Each transistor elements are independent.
Mini package for easy mounting

APPLICATION

Inverted circuit, switching circuit,
interface circuit, driver circuit

OUTLINE DRAWING

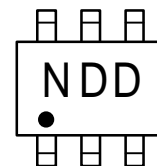
Unit: mm



MAXIMUM RATING (Ta=25)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	50	V
V_{EBO}	Emitter to Base voltage	10	V
V_{CEO}	Collector to Emitter voltage	50	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	

MARKING



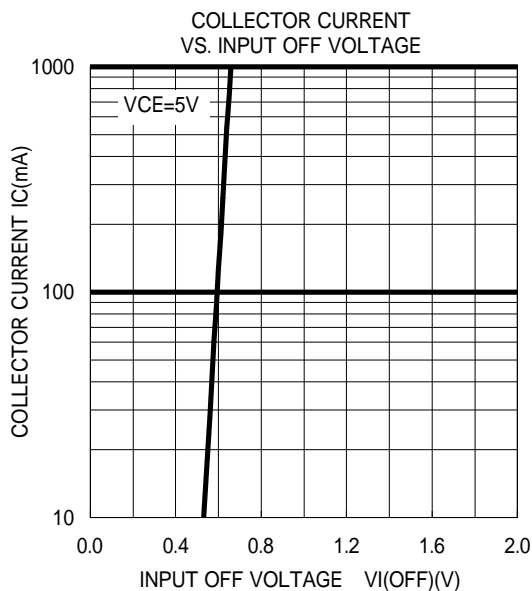
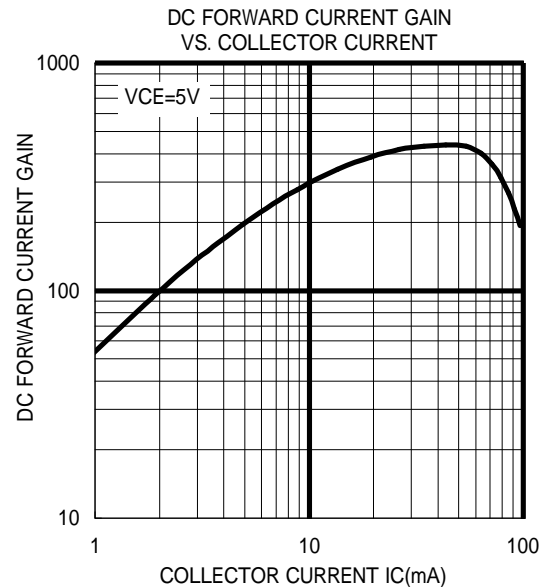
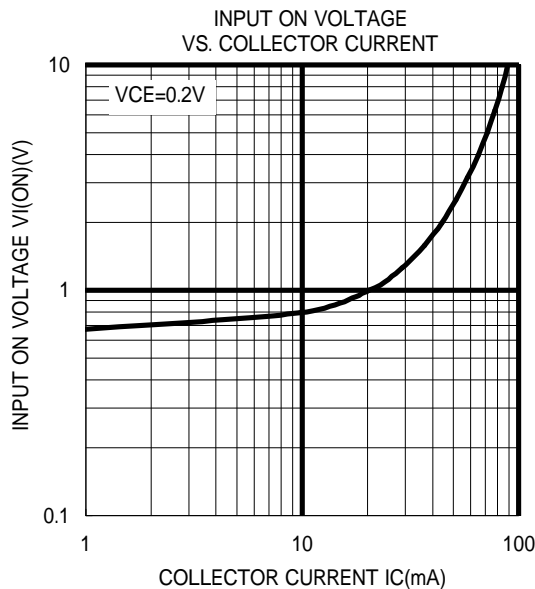
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ELECTRICAL CHARACTERISTICS (Ta=25)

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
I_{CBO}	Collector cut off current	$V_{CB}=50V, I_E=0$	-	-	0.1	μA
h_{FE}	DC forward current gain	$V_{CE}=5V, I_C=10mA$	80	-	-	-
$V_{CE(sat)}$	Collector to Emitter saturation voltage	$I_C=10mA, I_B=0.5mA$	-	0.1	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	$V_{CE}=5V, I_C=100 \mu A$	0.5	0.6	-	V
R_1	Input resistor	-	1.5	2.2	2.9	k
R_2/R_1	Resistor ratio	-	17	22	26	-
f_T	Gain band width product	$V_{CE}=6V, I_E=-10mA$	-	200	-	MHz

TYPICAL CHARACTERISTICS (Tr1 , Tr2)





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