

RT3NBBM

Composite Transistor With Resistor
For Switching Application
Silicon Epitaxial Type

DESCRIPTION

RT3NBBM is composite transistor built with two RT1N231 chips in SC-88 package.

FEATURE

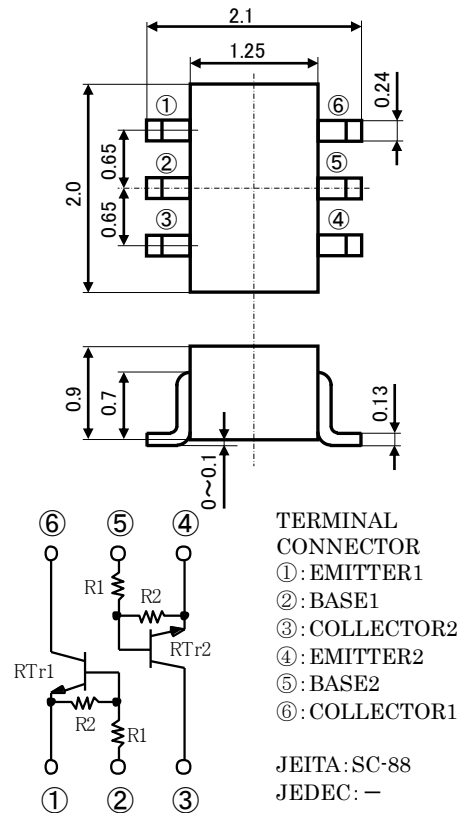
Built-in bias resistor ($R_1=2.2k\Omega$, $R_2=2.2k\Omega$)
Mini package for easy mounting

APPLICATION

Inverted circuit, Switching circuit,
Interface circuit, Driver circuit

OUTLINE DRAWING

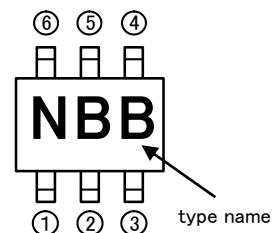
Unit:mm



MAXIMUM RATING($T_a=25^\circ\text{C}$)(R_{Tr1} , R_{Tr2} COMMON)

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
V_{IN}	Input voltage	12	V
I_C	Collector current	100	mA
I_{CM}	Peak Collector current	200	mA
P_T	Total dissipation	200	mW
T_j	Junction temperature	+150	$^\circ\text{C}$
T_{stg}	Storage temperature	-55~+150	$^\circ\text{C}$

MARKING



ELECTRICAL CHARACTERISTICS($T_a=25^\circ\text{C}$)(R_{Tr1} , R_{Tr2} COMMON)

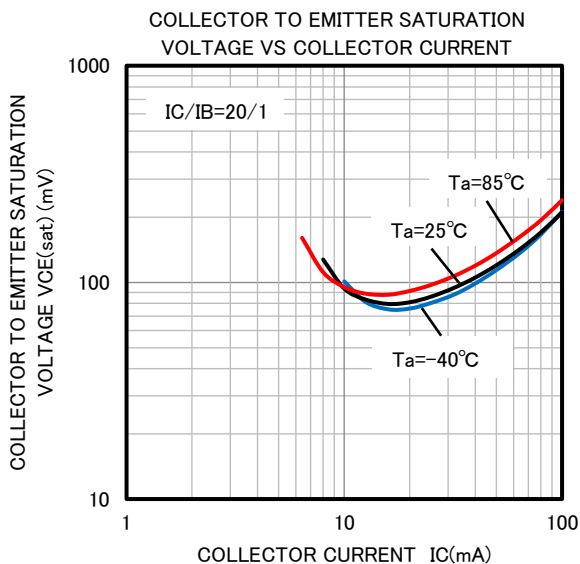
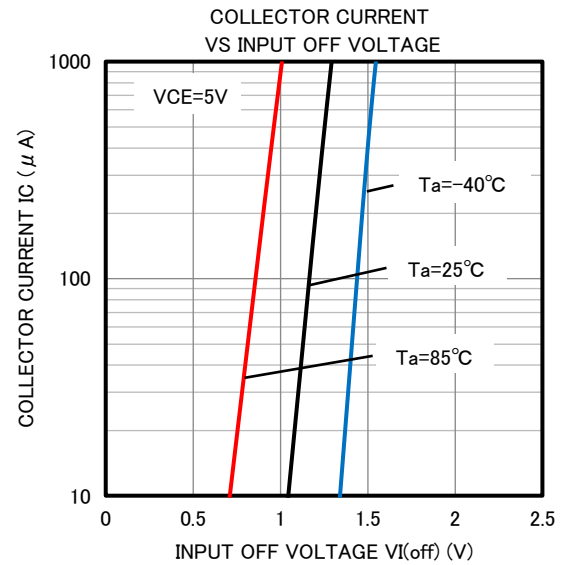
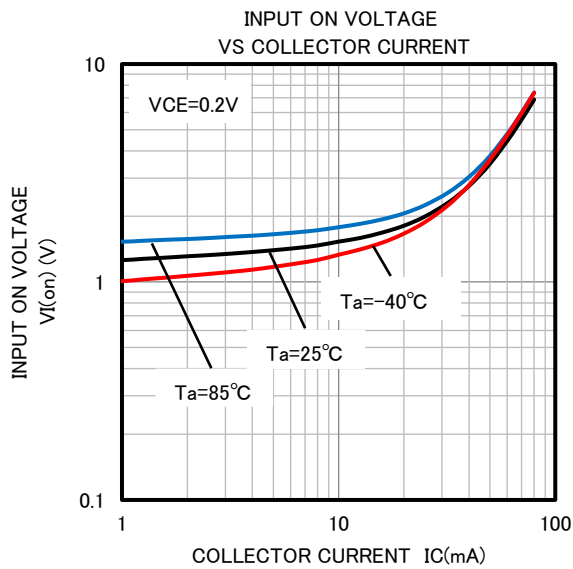
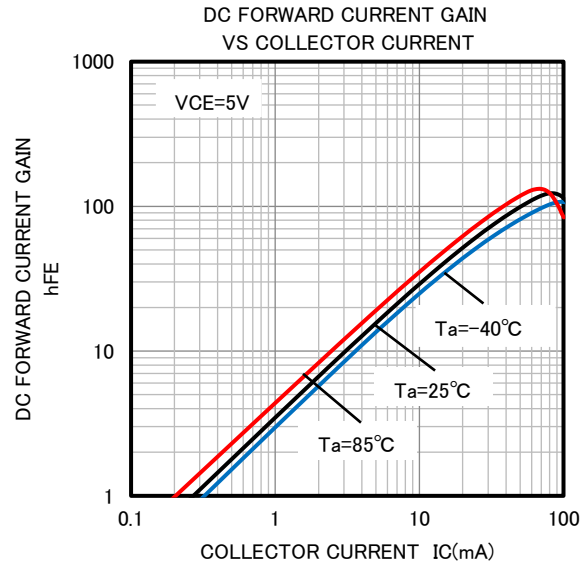
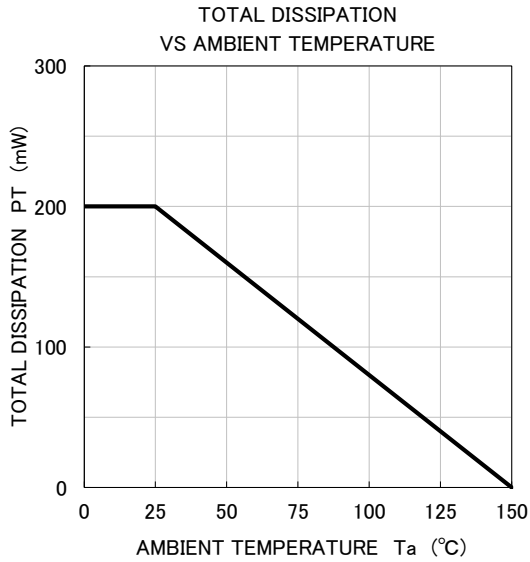
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CEO}$	Collector to Emitter breakdown voltage	$I_C=100\mu\text{A}$, $R_{BE}=\infty$	50	-	-	V
I_{CBO}	Collector cut off current	$V_{CB}=50\text{V}$, $I_E=0$	-	-	0.1	μA
I_{EBO}	Emitter cut off current	$V_{EB}=5\text{V}$, $I_C=0$	850	1140	1650	μA
h_{FE}	DC forward current gain	$V_{CE}=5\text{V}$, $I_C=20\text{mA}$	20	-	-	-
$V_{CE(sat)}$	Collector to Emitter saturation voltage	$I_C=10\text{mA}$, $I_B=0.5\text{mA}$	-	-	0.3	V
$V_{I(ON)}$	Input on voltage	$V_{CE}=0.2\text{V}$, $I_C=5\text{mA}$	-	1.3	2.2	V
$V_{I(OFF)}$	Input off voltage	$V_{CE}=5\text{V}$, $I_C=100\mu\text{A}$	0.7	1.1	-	V
R_1	Input resistor	-	1.5	2.2	2.9	$k\Omega$
R_2/R_1	Resistor ratio	-	0.8	1.0	1.2	-
f_T	Gain band width product	$V_{CE}=6\text{V}$, $I_E=10\text{mA}$	-	200	-	MHz

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TYPICAL CHARACTERISTICS

(RT_{r1}, RT_{r2} COMMON)



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