

# RT3XBBM

Composite Transistor  
For Muting Application  
Silicon NPN Epitaxial Type

## DESCRIPTION

RT3XBBM is a composite transistor with built-in bias resistor

## FEATURE

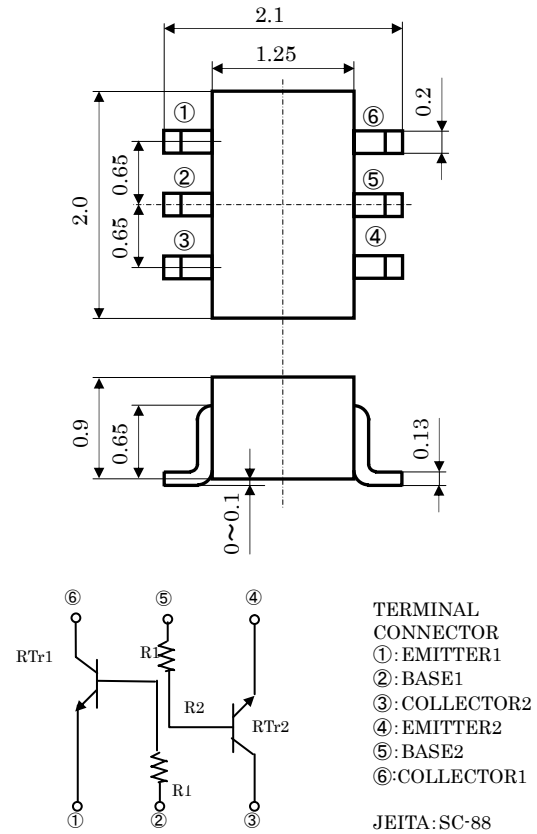
- Built-in bias resistor (  $R1=10\text{ K}\Omega$  )
- Mini package for easy mounting

## APPLICATION

muting circuit、 switching circuit

## OUTLINE DRAWING

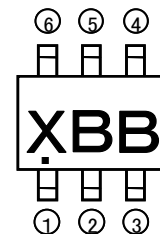
Unit: mm



## MAXIMUM RATINGS (Ta=25°C) (RTr1、RTr2)

Symbol	Parameter	Ratings	Unit
$V_{CBO}$	Collector to Base voltage	40	V
$V_{EBO}$	Emitter to Base voltage	40	V
$V_{CEO}$	Collector to Emitter voltage	20	V
$I_C$	Collector current	400	mA
$P_C$	Collector dissipation (Total Ta=25°C)	150	mW
$T_j$	Junction temperature	+150	°C
$T_{stg}$	Storage temperature	-55~+150	°C

## MARKING



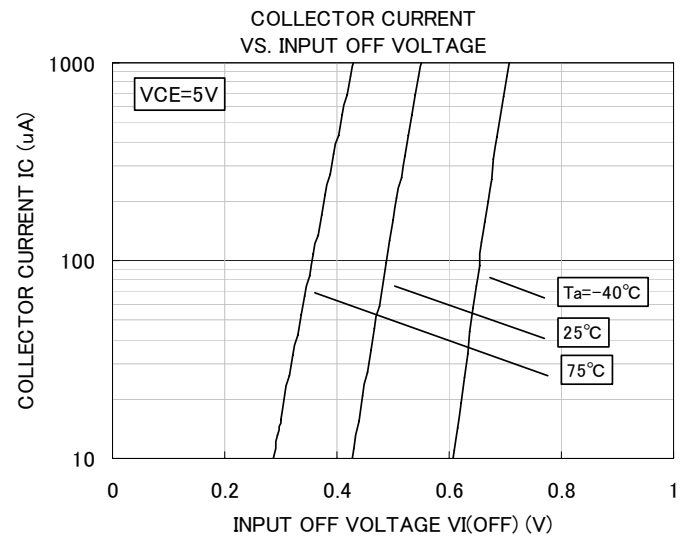
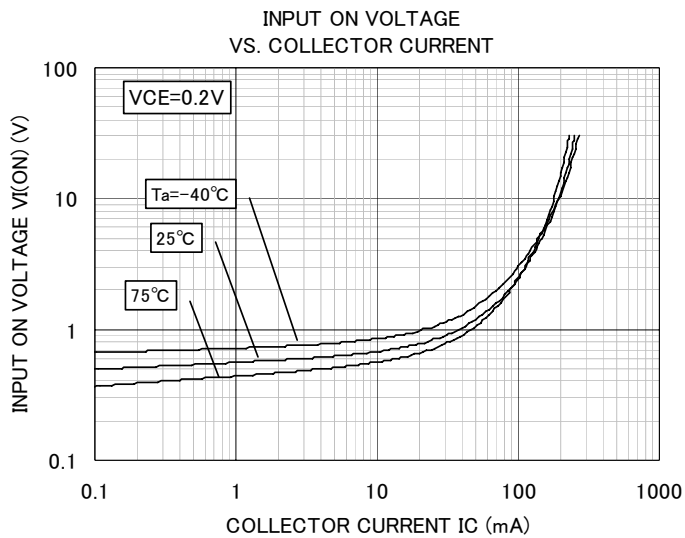
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## Electrical characteristics (Ta=25°C)

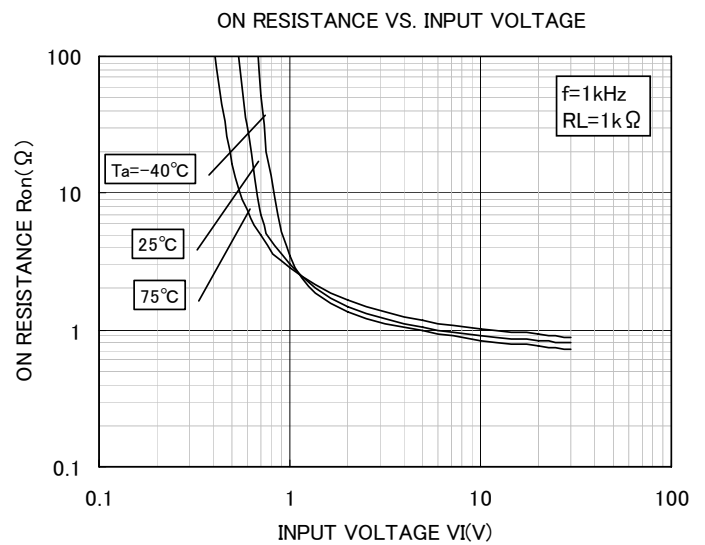
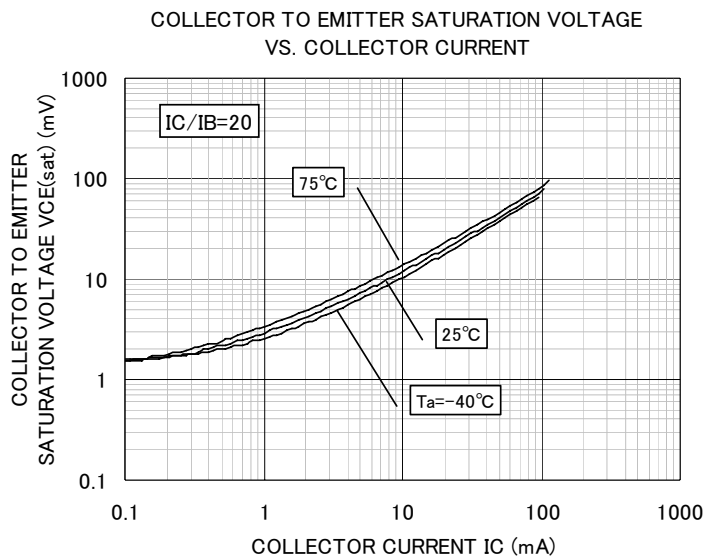
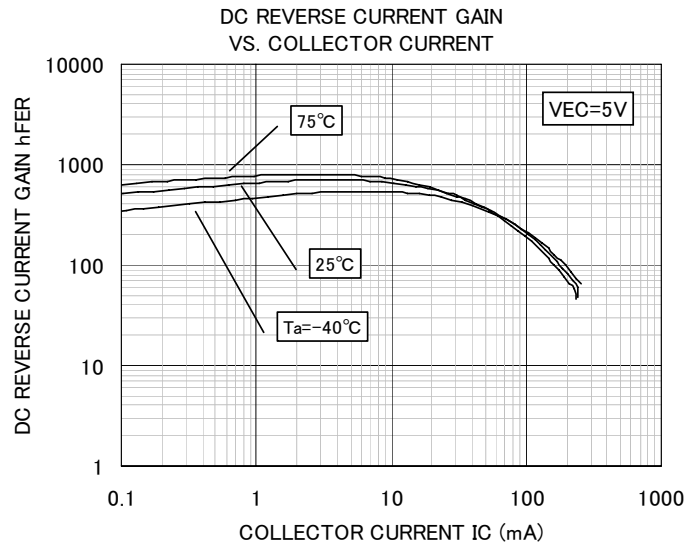
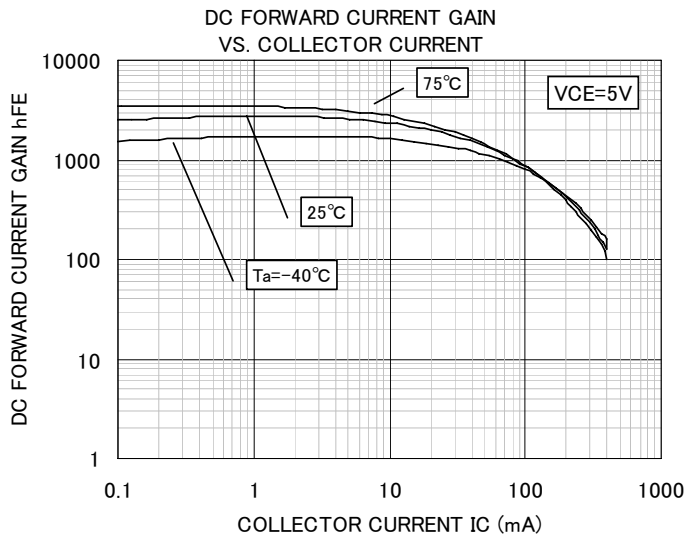
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V <sub>CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =50 μA, I <sub>E</sub> =0mA	40			V
V <sub>EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =50 μA, I <sub>C</sub> =0mA	40			V
V <sub>CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =1mA, R <sub>BE</sub> =∞	20			V
I <sub>CBO</sub>	Collector cutoff current	V <sub>CB</sub> =40V, I <sub>E</sub> =0mA			0.5	μA
I <sub>EBO</sub>	Emitter cutoff current	V <sub>EB</sub> =40V, I <sub>C</sub> =0mA			0.5	μA
h <sub>FE</sub>	DC current transfer ratio	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA	820		2500	-
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA		10		mV
R <sub>I</sub>	Input resistance	-	7	10	13	KΩ
f <sub>T</sub>	Transition frequency	V <sub>CE</sub> =10V, I <sub>E</sub> =-10mA, f=100MHz		35		MHz
R <sub>on</sub>	Output On-resistance	V <sub>I</sub> =7V, f=1MHz		0.94		Ω

## TYPICAL CHARACTERISTICS (Tr1, Tr2)



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