RT3XBBM

Composite Transistor
For Muting Application
Silicon NPN Epitaxial Type

DESCRIPTION

RT3XBBM is a composite transistor with built-in bias resistor

FEATURE

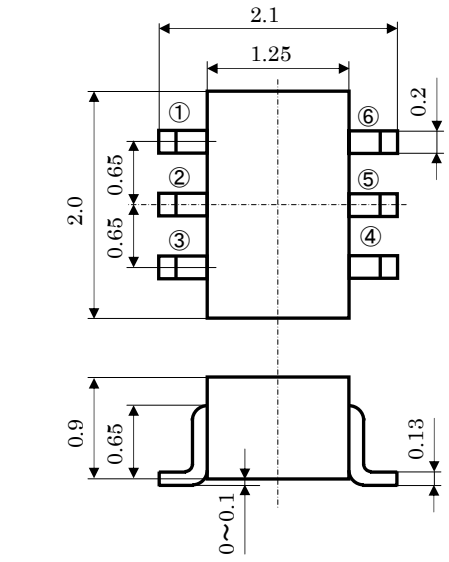
- Built-in bias resistor (R1=10 KΩ)
- Mini package for easy mounting

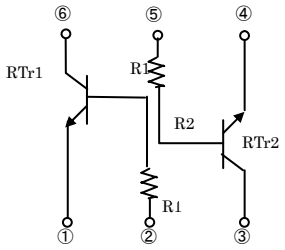
APPLICATION

muting circuit、switching circuit

OUTLINE DRAWING

Unit:mm





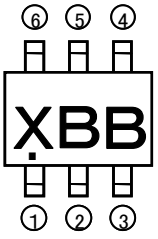
TERMINAL CONNECTOR
①:EMITTER1
②:BASE1
③:COLLECTOR2
④:EMITTER2
⑤:BASE2
⑥:COLLECTOR1

JEITA:SC-88

MAXIMUM RATINGS (Ta=25℃)(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℃)	150	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

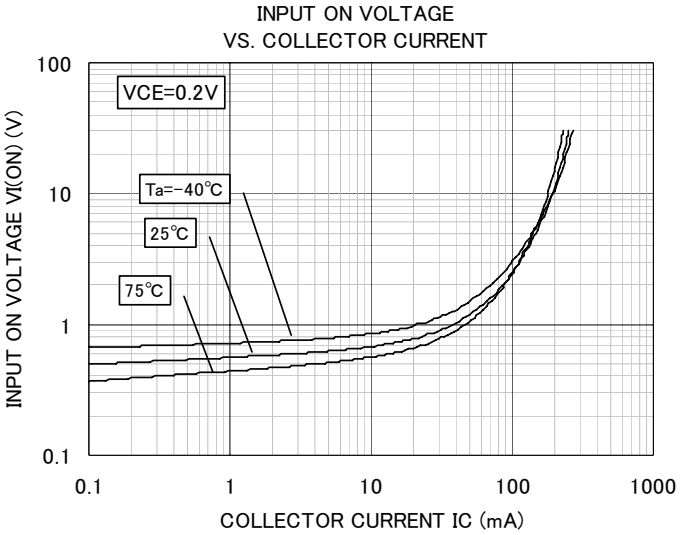
MARKING

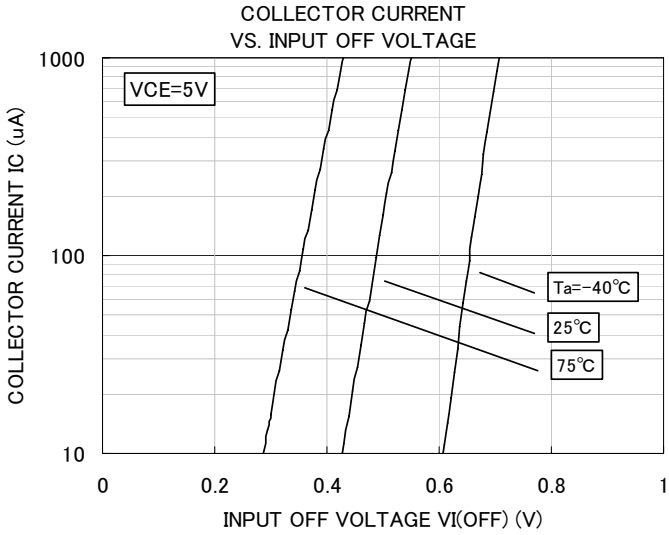


Electrical characteristics (Ta=25℃)

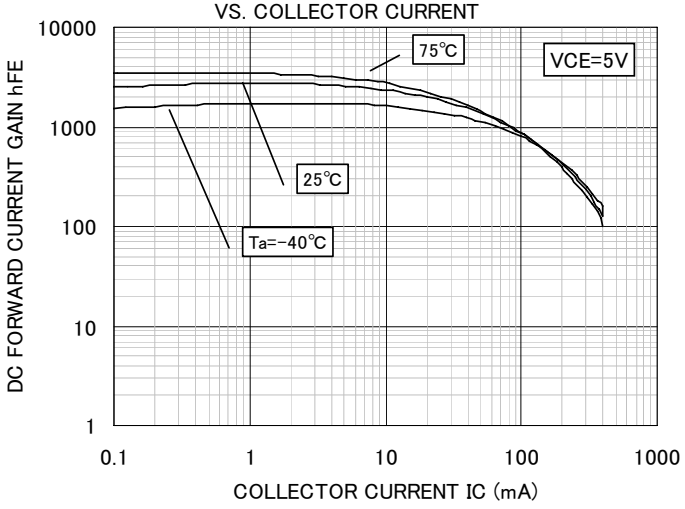
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V_{CBO}	Collector-base breakdown voltage	I_C=50 μA , I_E=0mA	40			V
V_{EBO}	Emitter-base breakdown voltage	I_E=50 μA , $_C$=0mA	40			V
V_{CEO}	Collector-emitter breakdown voltage	I_C=1mA , R_{BE}=∞	20			V
I_{CBO}	Collector cutoff current	V_{CB}=40V , I_E=0mA			0.5	μA
I_{EBO}	Emitter cutoff current	V_{EB}=40V , I_C=0mA			0.5	μA
h_{FE}	DC current transfer ratio	V_{CE}=5V , I_C=−10mA	820		2500	−
VCE(sat)	Collector-emitter saturation voltage	I_C=10mA , I_B=0.5mA		10		mV
R1	Input resistance	−	7	10	13	KΩ
fT	Transition frequency	V_{CE}=10V, I_E=−10mA, f=100MHz		35		MHz
Ron	Output On-resistance	V_I=7V, f=1MHz		0.94		Ω

TYPICAL CHARACTERISTICS (Tr1、Tr2)

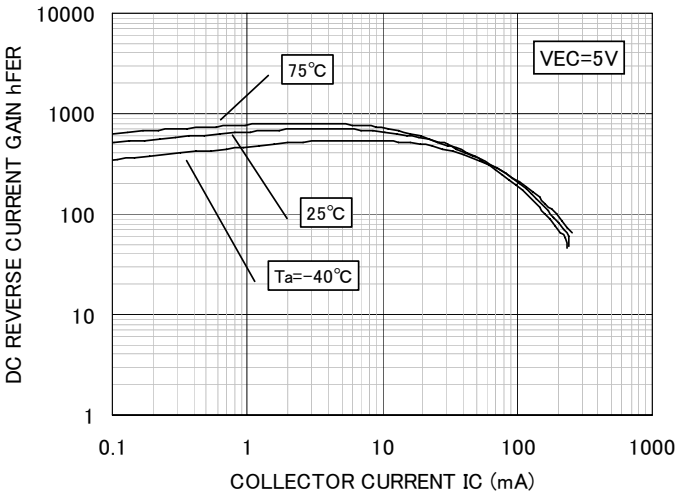




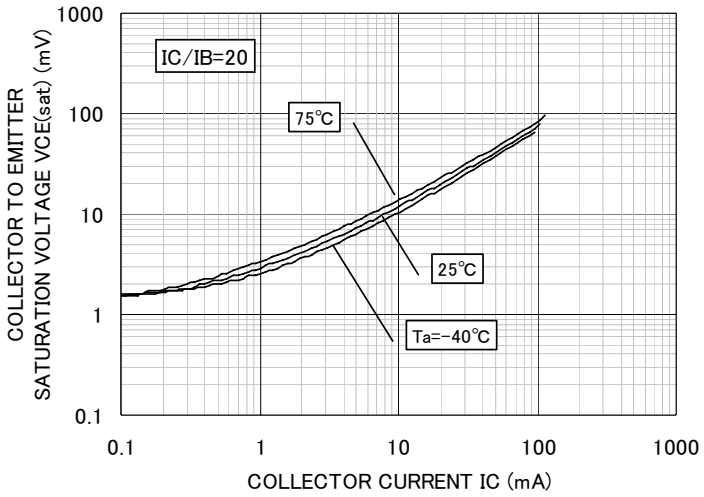
DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



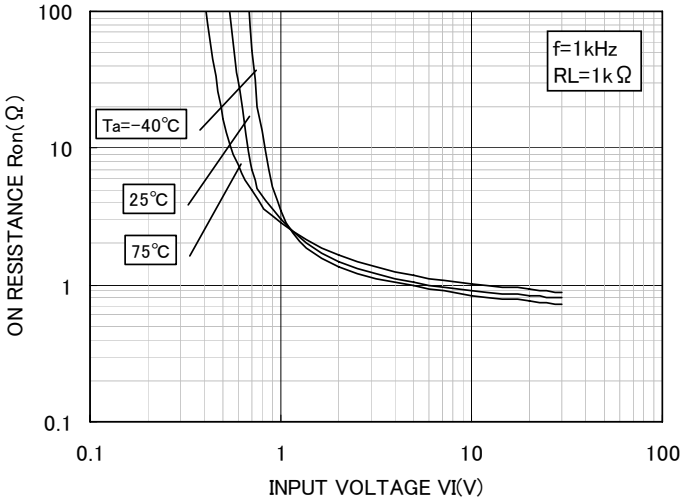
DC REVERSE CURRENT GAIN
VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE
VS. COLLECTOR CURRENT



ON RESISTANCE VS. INPUT VOLTAGE



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Jun.2008