RT3C99M

Composite Transistor
For Muting Application
Silicon Npn Epitaxial Type

DESCRIPTION

RT3C99M is a composite transistor built with two 2SC5938A chips in SC-88 package.

FEATURE

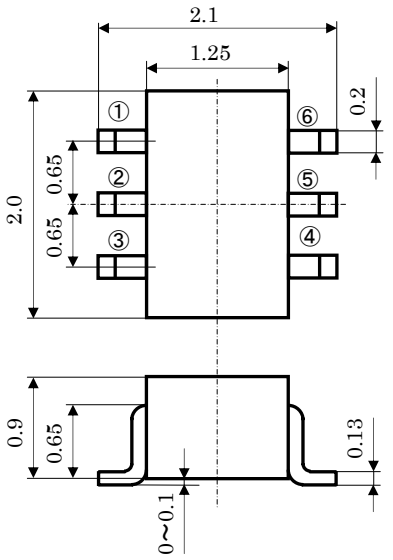
Silicon NPN epitaxial type
Each transistor elements are independent.
Mini package for easy mounting

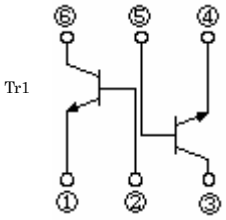
APPLICATION

muting circuit、switching circuit

OUTLINE DRAWING

Unit: mm





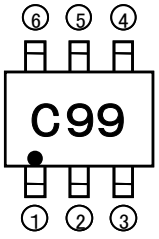
TERMINAL CONNECTOR
①: EMITTER1
②: BASE1
③: COLLECTOR2
④: EMITTER2
⑤: BASE2
⑥: COLLECTOR1

JEITA: SC-88

MAXIMUM RATING (Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to Base voltage	50	V
V_{EBO}	Emitter to Base voltage	40	V
V_{CEO}	Collector to Emitter voltage	20	V
I_C	Collector current	200	mA
$P_{C(Total)}$	Collector dissipation (Ta=25℃)	150	mW
T_j	Junction temperature	+125	℃
T_{stg}	Storage temperature	-55～+125	℃

MARKING



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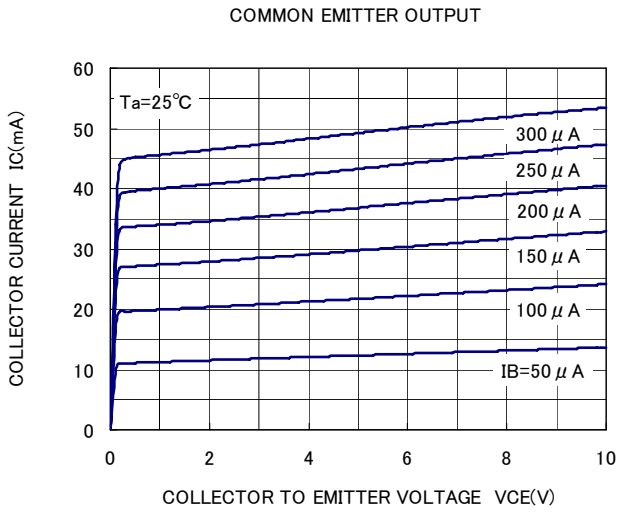
ELECTRICAL CHARACTERISTICS (Ta=25℃)

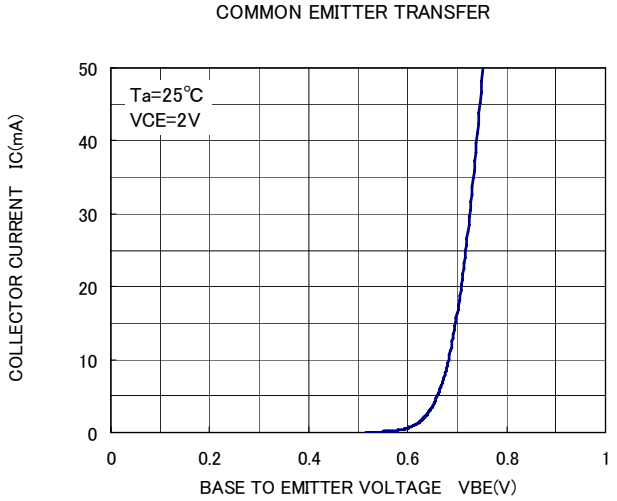
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I_{CBO}	Collector cut off current	V_{CB}=50V,I_E=0	-	-	0.1	μA
I_{EBO}	Emitter cut off current	V_{EB}=40V,I_C=0	-	-	0.1	μA
h_{FE}*	DC forward current gain	V_{CE}=2V,I_C=4mA	200	-	1200	-
$V_{CE(sat)}$	Collector to Emitter saturation voltage	I_C=30mA,I_B=3mA	-	30	-	V
f_T	Gain band width product	V_{CE}=6V,I_E=-4mA	-	30	-	MHz
C_{ob}	Collector output capacitance	V_{CB}=10V,I_E=0,f=1MHz	-	5.0	-	pF
Ron	Output On-resistance	I_B=5mA, f=1MHz	-	0.95	-	Ω

* : It shows h_{FE} classification in right table.

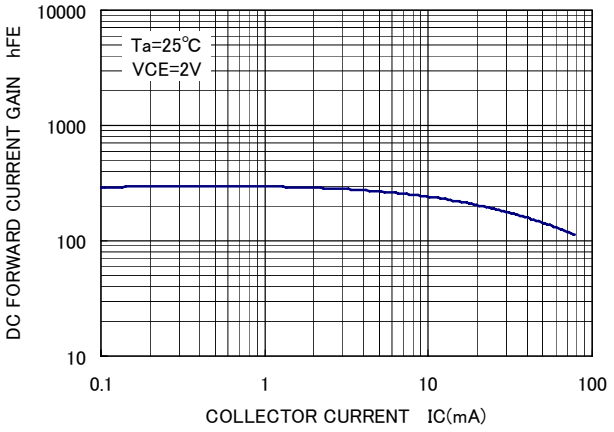
Item	A	B
hFE	200～700	350～1200

TYPICAL CHARACTERISTICS (Tr1、Tr2)

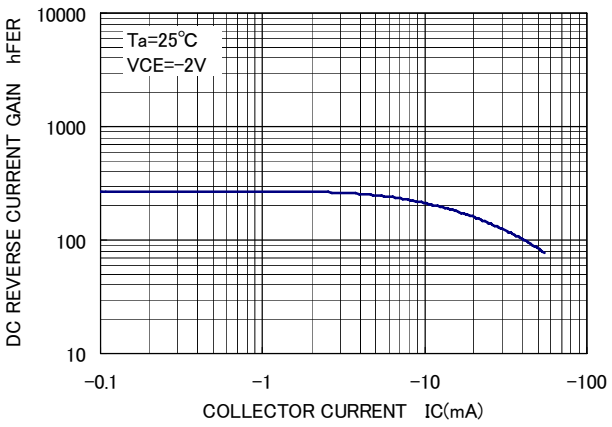




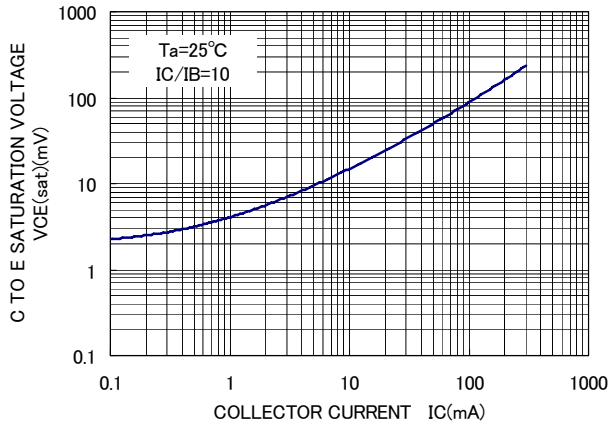
DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



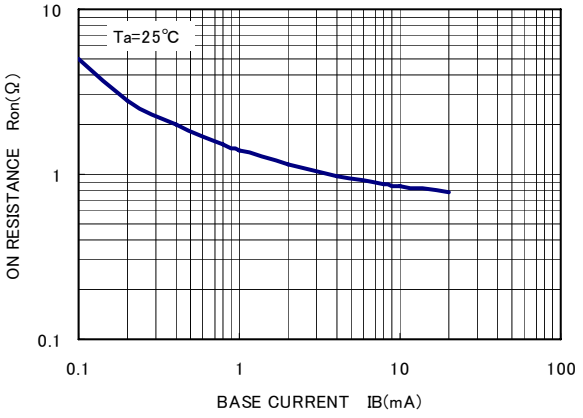
DC REVERSE CURRENT GAIN
VS. COLLECTOR CURRENT



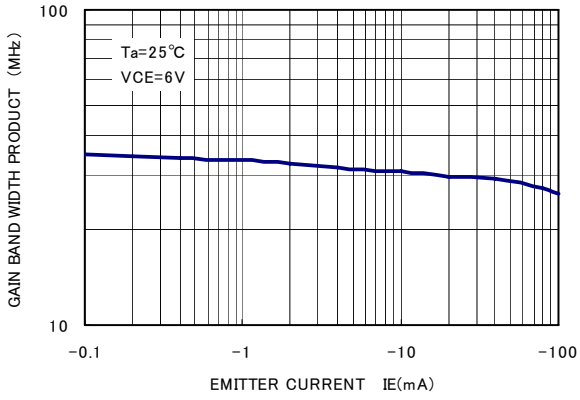
COLLECTOR TO EMITTER SATURATION VOLTAGE
VS. COLLECTOR CURRENT



ON RESISTANCE VS. BASE CURRENT



GAIN BAND WIDTH PRODUCT VS.
EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS.COLLECTOR TO BASE VOLTAGE