RT3XBBM

Composite Transistor With Resistor
For Muting Application
Silicon Epitaxial Type

DESCRIPTION

RT3XBBM is composite transistor built with two RTAN140 chips in SC-88 package.

FEATURE

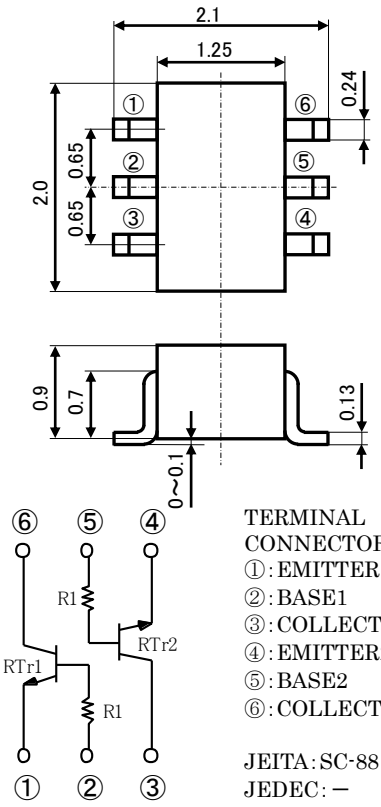
- Built-in bias resistor (R_1=10kΩ)
- Mini package for easy mounting
- High reverse h_{FE}.
- Small collector to emitter saturation voltage.
  $V_{CE(sat)}$=10mV(TYP.)(@I_C=10mA/I_B=0.5mA)
- Low on Resistor.
  R_{ON}=0.94Ω(TYP.)(@V_I=7V)

APPLICATION

Muting circuit, Switching circuit

OUTLINE DRAWING

Unit:mm



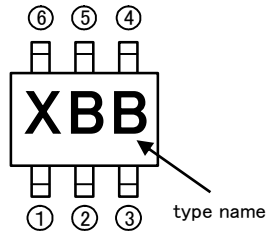
TERMINAL CONNECTOR
①:EMITTER1
②:BASE1
③:COLLECTOR2
④:EMITTER2
⑤:BASE2
⑥:COLLECTOR1

JEITA:SC-88
JEDEC:−

MAXIMUM RATING(Ta=25℃)(RTr1, RTr2 COMMON)

SYMBOL	PARAMETER	RATING	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_T	Total dissipation	150	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	-55～+150	℃

MARKING



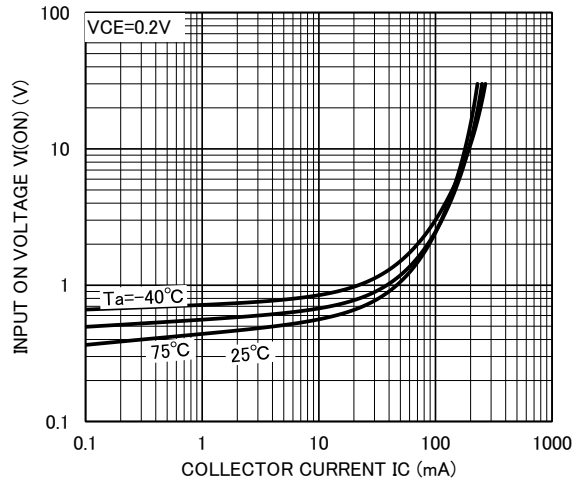
ELECTRICAL CHARACTERISTICS(Ta=25℃)(RTr1, RTr2 COMMON)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	Collector to Base breakdown voltage	I_C=50μA, I_E=0	40	−	−	V
$V_{(BR)EBO}$	Emitter to Base breakdown voltage	I_E=50μA, I_C=0	40	−	−	V
$V_{(BR)CEO}$	Collector to Emitter breakdown voltage	I_C=1mA, R_{BE}=∞	20	−	−	V
I_{CBO}	Collector cut off current	V_{CB}=40V, I_E=0	−	−	0.5	μA
I_{EBO}	Emitter cut off current	V_{EB}=40V, I_C=0	−	−	0.5	μA
h_{FE}	DC forward current gain	V_{CE}=5V, I_C=10mA	820	−	2500	−
$V_{CE(sat)}$	Collector to Emitter saturation voltage	I_C=10mA, I_B=0.5mA	−	10	−	mV
R_1	Input resistor	−	7	10	13	kΩ
f_T	Gain band width product	V_{CE}=10V, I_E=-10mA, f=100MHz	−	35	−	MHz
R_{ON}	Output On-resistor	V_I=7V, R_L=1kΩ	−	0.94	−	Ω

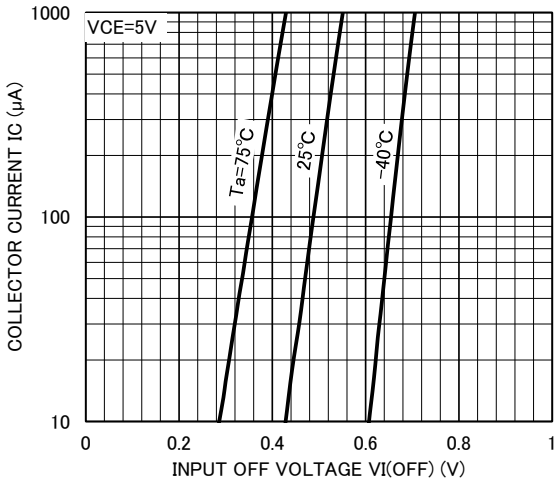
TYPICAL CHARACTERISTICS

(RTr1,RTr2 COMMON)

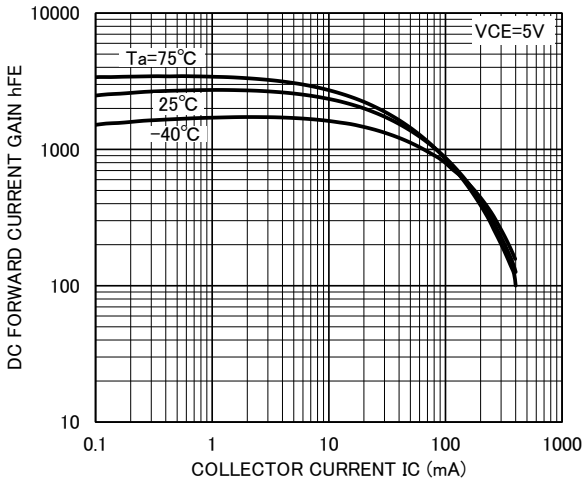
VI(ON)-IC



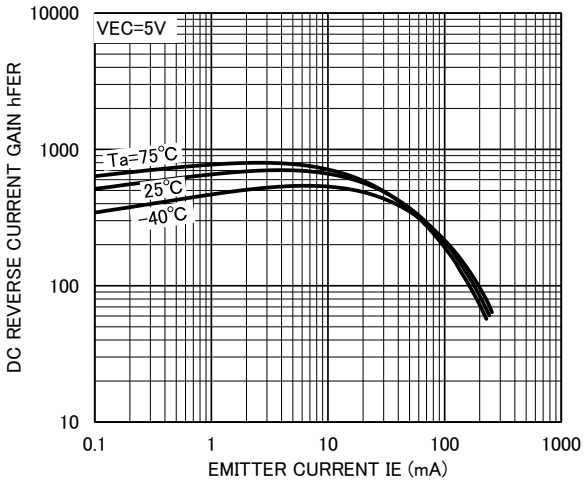
IC-VI(OFF)



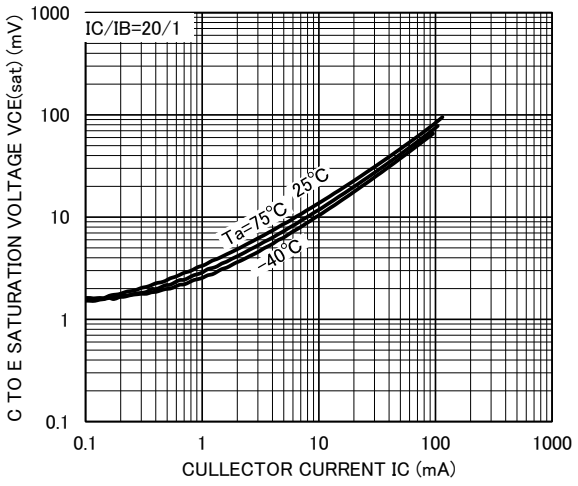
hFE-IC



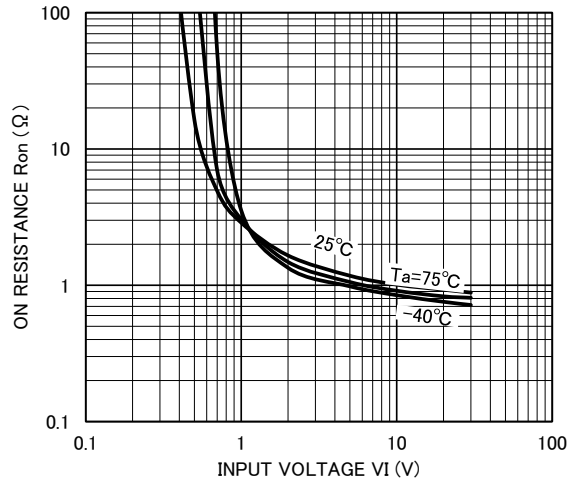
hFER-IE



VCE(sat)-IC



Ron-VI



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