

# RT3WLMM

Composite Transistor  
For Low Frequency Amplify Application  
Silicon Epitaxial Type

## DESCRIPTION

RT3WLMM is compound transistor built with 2SC3052 chip and ISA1235A chip in SC-88 package.

## FEATURE

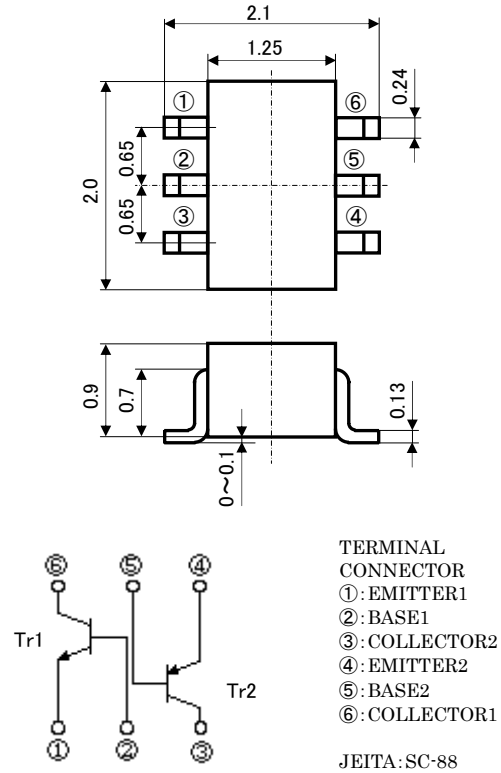
- Silicon epitaxial type
- Each transistor elements are independent.
- Mini package for easy mounting

## APPLICATION

For low frequency amplify application

## OUTLINE DRAWING

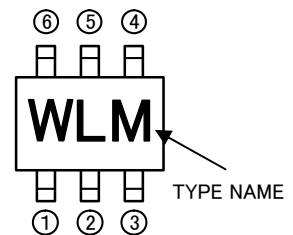
Unit: mm



## MAXIMUM RATING (Ta=25°C) (Tr1\_NPN, Tr2\_PNP)

SYMBOL	PARAMETER	RATING		UNIT
		Tr1	Tr2	
VCBO	Collector to Base voltage	50	-60	V
VEBO	Emitter to Base voltage	6	-6	V
VCEO	Collector to Emitter voltage	50	-50	V
IC	Collector current	200	-200	mA
PT	Total dissipation	200		mW
Tj	Junction temperature	+150		°C
Tstg	Storage temperature	-55~+150		°C

## MARKING



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## ELECTRICAL CHARACTERISTICS (Ta=25°C) (Tr1\_NPN, Tr2\_PNP)

Symbol	Parameter	Test conditions		Limits			Unit
				Min	Typ	Max	
V(BR)CEO	Collector to Emitter breakdown voltage	Tr1	$I_C=100\mu A, R_{BE}=\infty$	50	-	-	V
		Tr2	$I_C=-100\mu A, R_{BE}=\infty$	-50	-	-	
ICBO	Collector cut off current	Tr1	$V_{CB}=50V, I_E=0$	-	-	0.1	$\mu A$
		Tr2	$V_{CB}=-60V, I_E=0$	-	-	-0.1	
IEBO	Emitter cut off current	Tr1	$V_{EB}=6V, I_C=0$	-	-	0.1	$\mu A$
		Tr2	$V_{EB}=-6V, I_C=0$	-	-	-0.1	
hFE*	DC forward current gain	Tr1	$V_{CE}=6V, I_C=1mA$	150	-	500	-
		Tr2	$V_{CE}=-6V, I_C=-1mA$				
hFE	DC forward current gain	Tr1	$V_{CE}=6V, I_C=0.1mA$	90	-	-	-
		Tr2	$V_{CE}=-6V, I_C=-0.1mA$				
VCE(sat)	Collector to Emitter saturation voltage	Tr1	$I_C=100mA, I_B=10mA$	-	-	0.3	V
		Tr2	$I_C=-100mA, I_B=-10mA$	-	-	-0.3	
fT	Gain band width product	Tr1	$V_{CE}=6V, I_E=-10mA$	-	200	-	MHZ
		Tr2	$V_{CE}=-6V, I_E=10mA$				
Cob	Collector output capacitance	Tr1	$V_{CB}=6V, I_E=0, f=1MHz$	-	2.5	-	pF
		Tr2	$V_{CB}=-6V, I_E=0, f=1MHz$	-	4.0	-	
NF	Noise figure	Tr1	$V_{CE}=6V, I_E=0.1mA, f=1kHz, R_G=2k\Omega$	-	-	15	dB
		Tr2	$V_{CE}=-6V, I_E=0.3mA, f=100Hz, R_G=10k\Omega$	-	-	20	

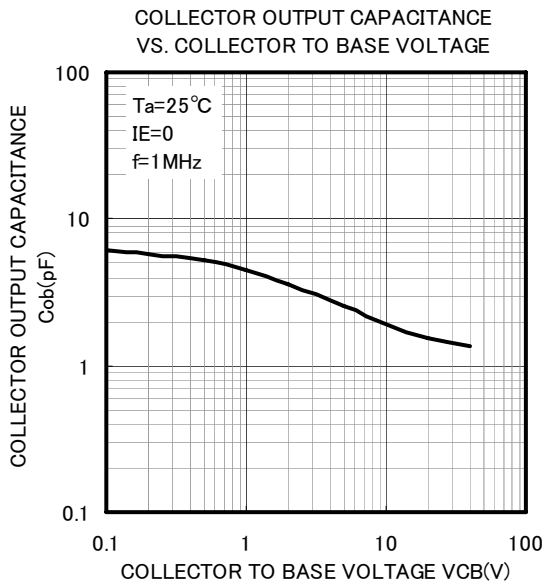
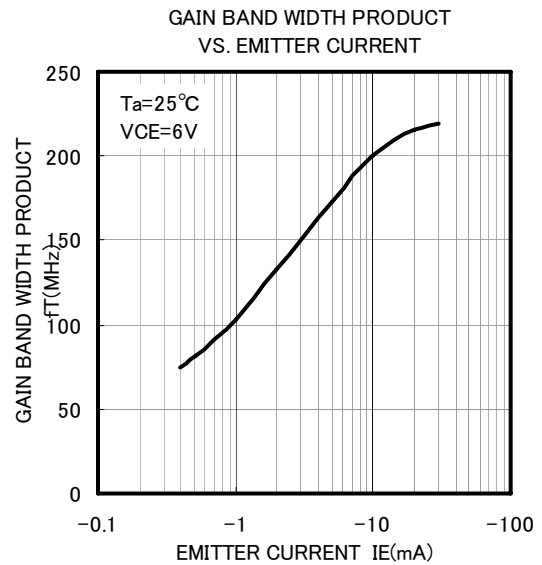
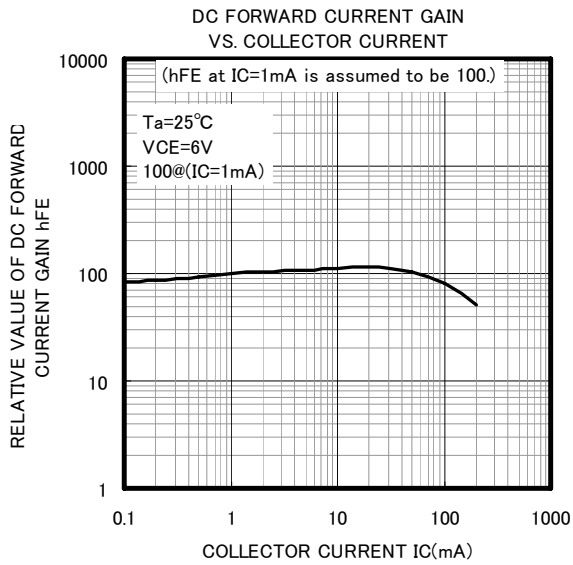
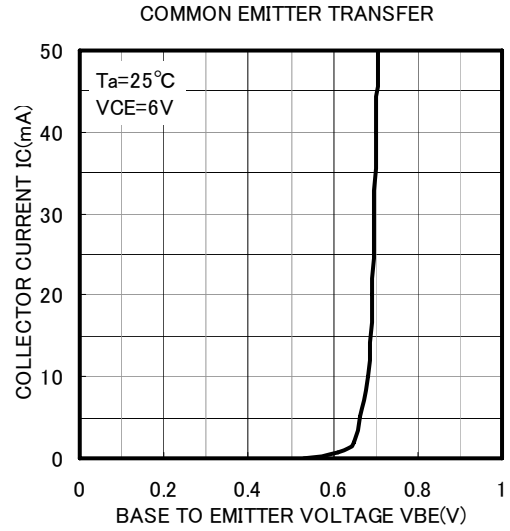
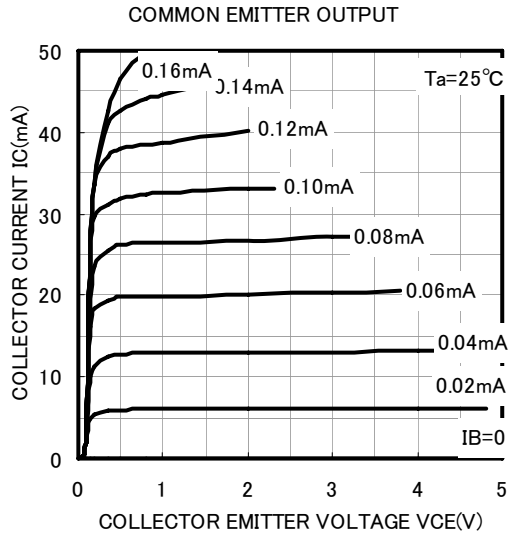
\* : It shows hFE classification in right table.

Item	E	F
hFE	150~300	250~500

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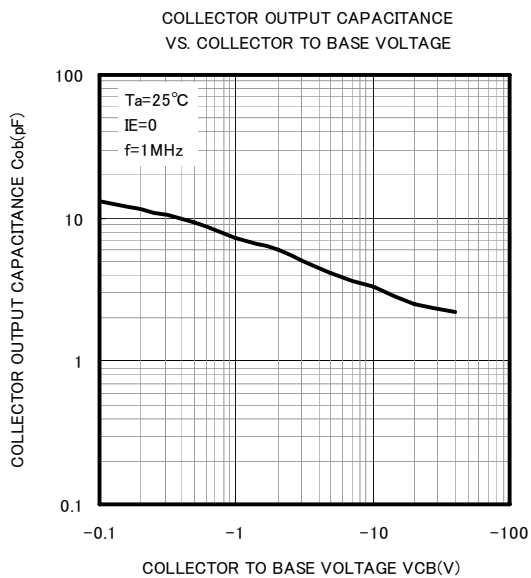
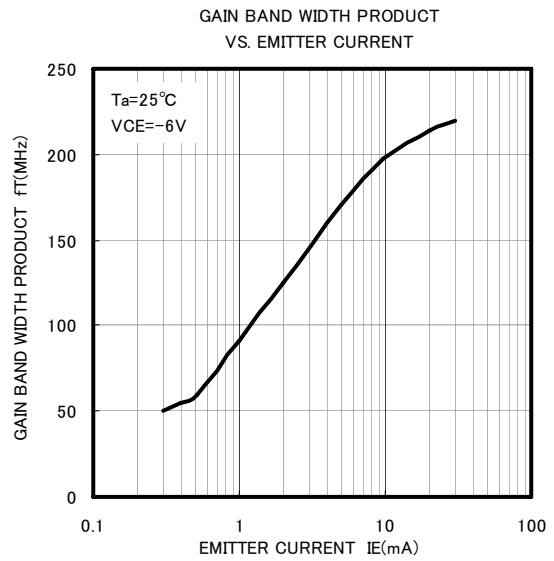
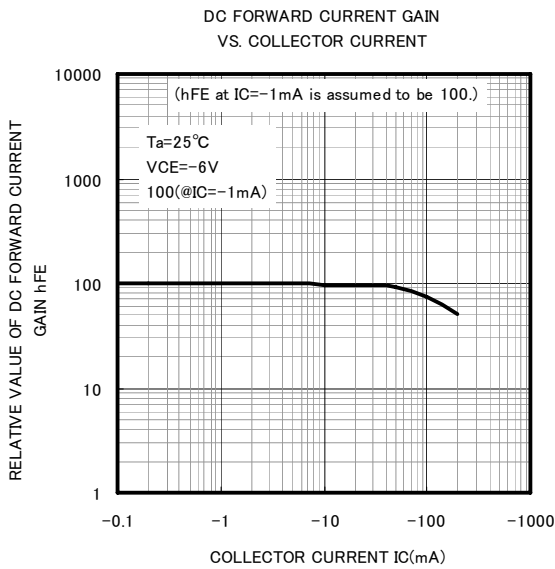
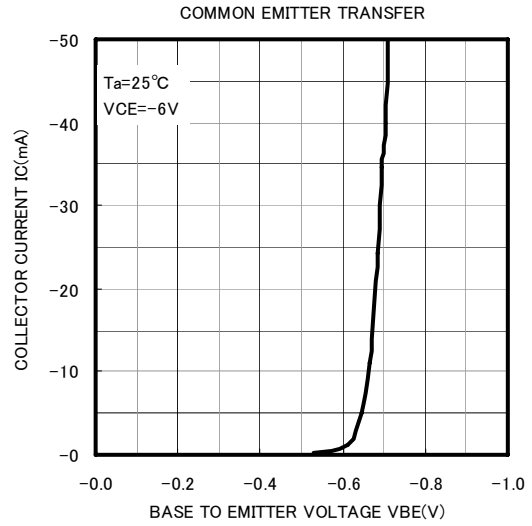
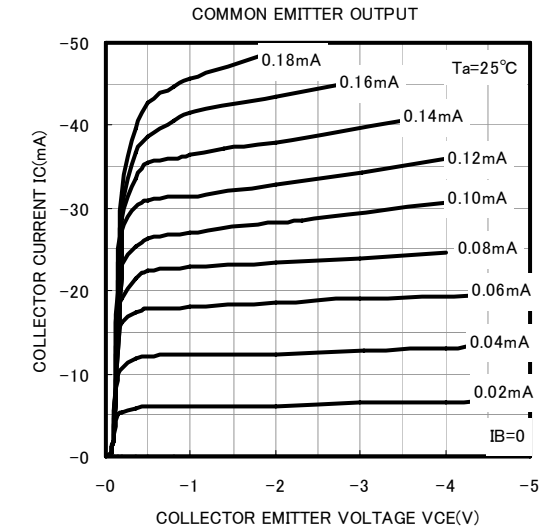
## TYPICAL CHARACTERISTICS (Tr1\_NPN)



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## TYPICAL CHARACTERISTICS (Tr2\_PNP)





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