

SMA5101

Recommended Operating Condition at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Supply Voltage	VC1E1		1.2	3	6	V
	VC2E1		1.2	3	6	V
	VC1E2		1.2	3	6	V
	VC2E2		1.2	3	6	V

Electrical Characteristics at Ta=25°C

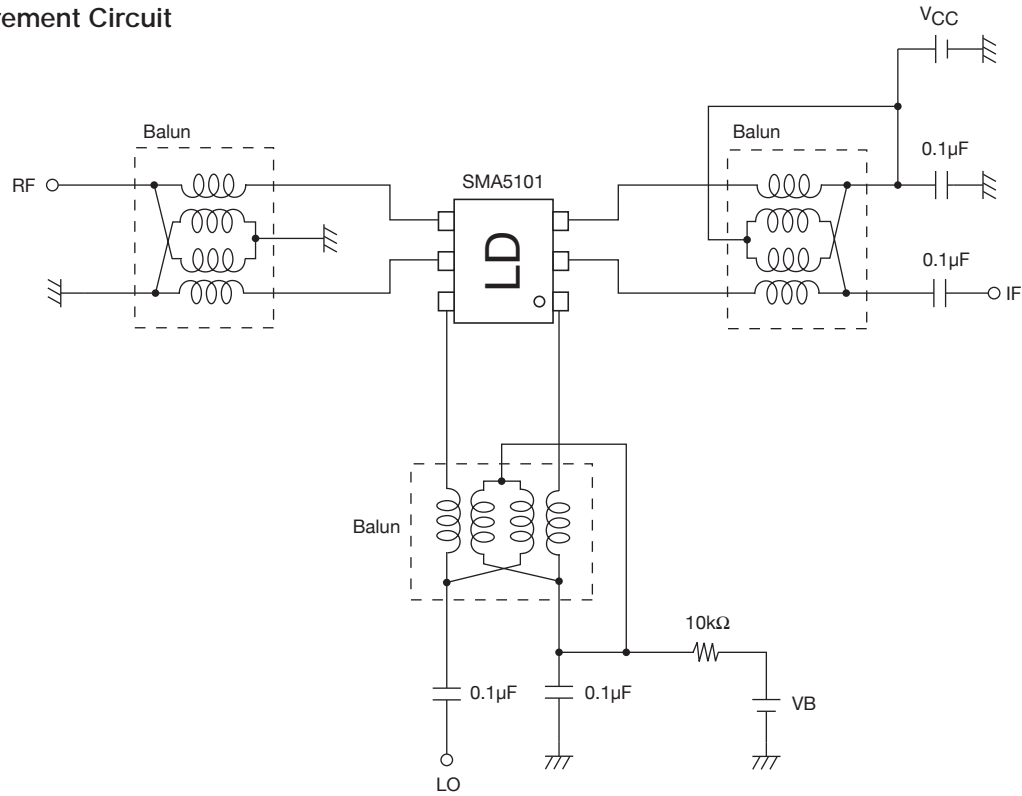
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	IC1B1O	VC1B1=5V			1	μA
	IC2B1O	VC2B1=5V			1	μA
	IC1B2O	VC1B2=5V			1	μA
	IC2B2O	VC2B2=5V			1	μA
Emitter Cutoff Current	IE1B1O	VE1B1=1V			1	μA
	IE2B1O	VE2B1=1V			1	μA
	IE1B2O	VE1B2=1V			1	μA
	IE2B2O	VE2B2=1V			1	μA
DC Current Gain	hFE1	VC1E1=1V, IC1E1=3mA	20		120	
	hFE2	VC2E1=1V, IC2E1=3mA	20		120	
	hFE3	VC1E2=1V, IC1E2=3mA	20		120	
	hFE4	VC2E2=1V, IC2E2=3mA	20		120	
Conversion Gain *1	Gc	VCC=5V, ICC=6mA, f(RF)=450MHz, f(LO)=500MHz, P(RF)=-15dBm, P(LO)=-6dBm		-0.5		dB
Input Intercept Point *1	IIP3	VCC=5V, ICC=6mA, f(RF1)=450MHz, f(RF2)=451MHz, f(LO)=500MHz, P(RF1)=P(RF2)=-15dBm, P(LO)=-6dBm		15		dBm

*1 : On evaluation board

Ordering Information

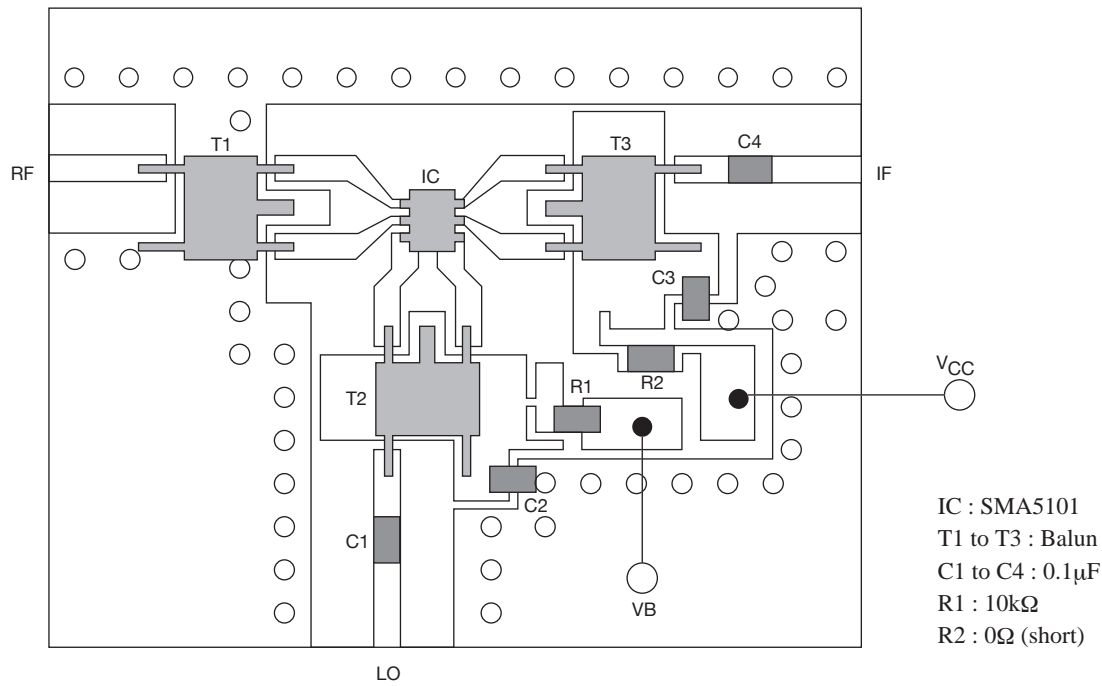
Device	Package	Shipping	memo
SMA5101-TL-H	MCPH6	3,000pcs./reel	Pb Free and Halogen Free

Measurement Circuit



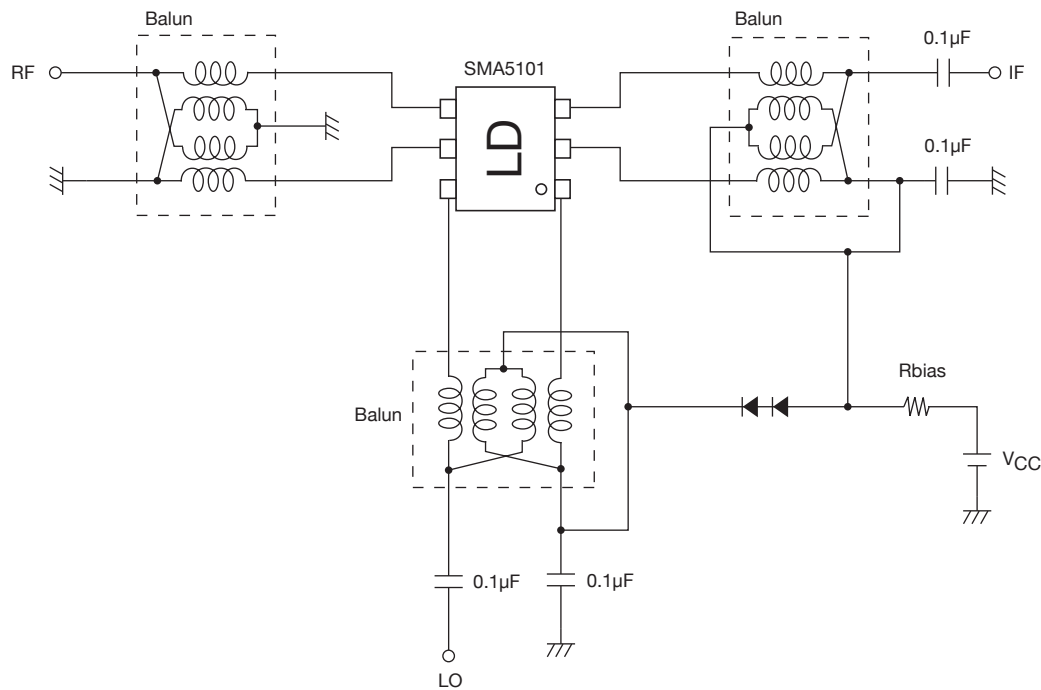
SMA5101

Evaluation Board

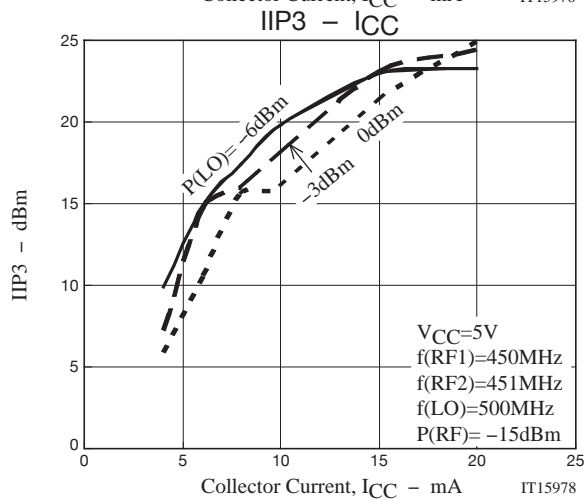
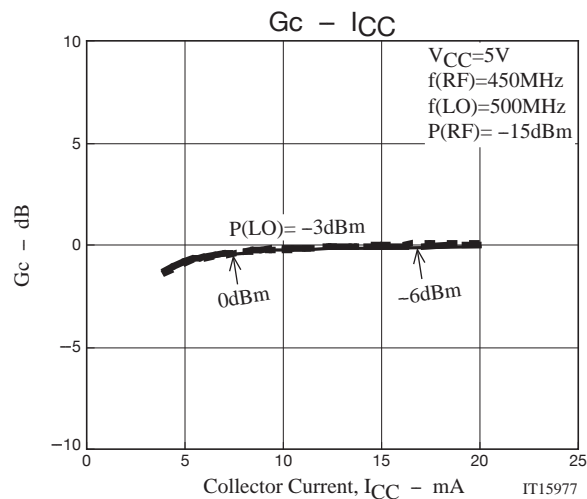
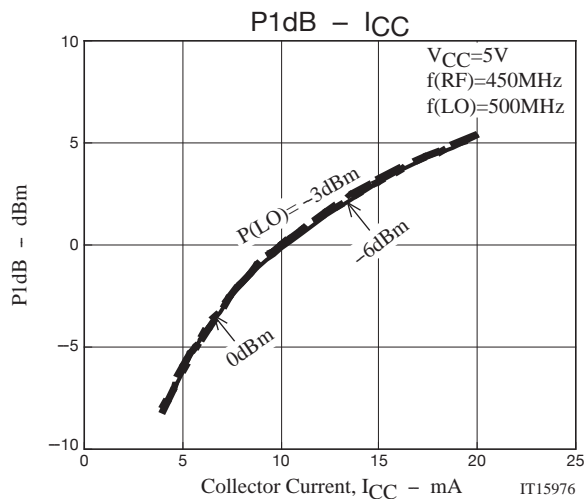


IT15508

Circuit Example (Self Bias)



IT15509



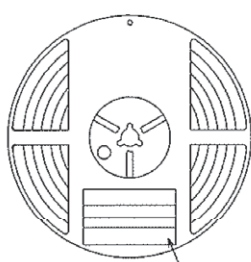
Embossed Taping Specification

SMA5101-TL-H

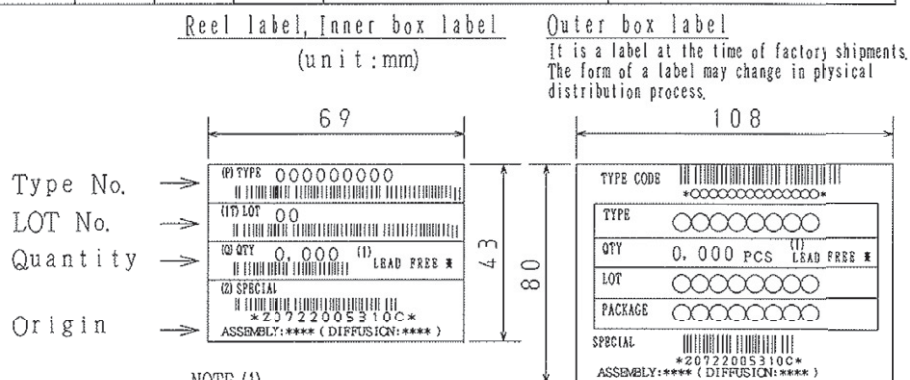
1. Packing Format

Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
MCPH6	MCP4	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Packing method



Reel label



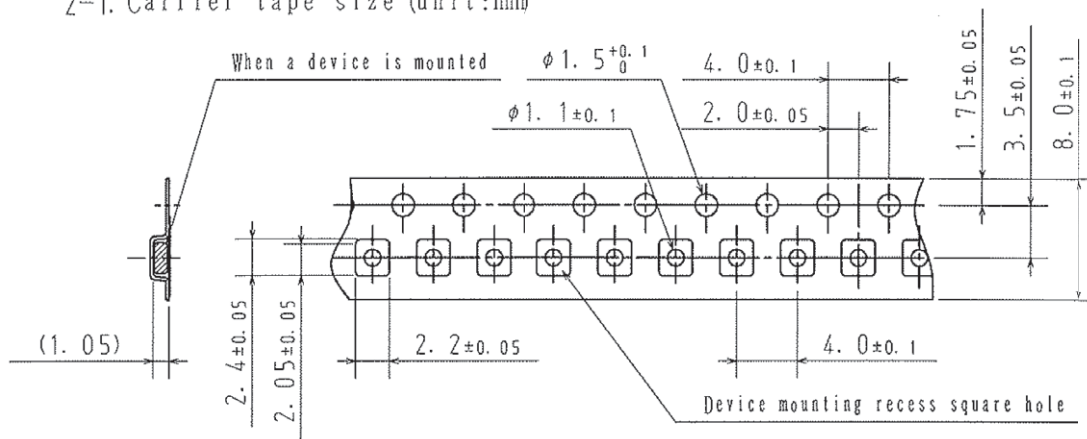
NOTE (1)

The LEAD FREE * description shows that the surface treatment of the terminal is lead free.

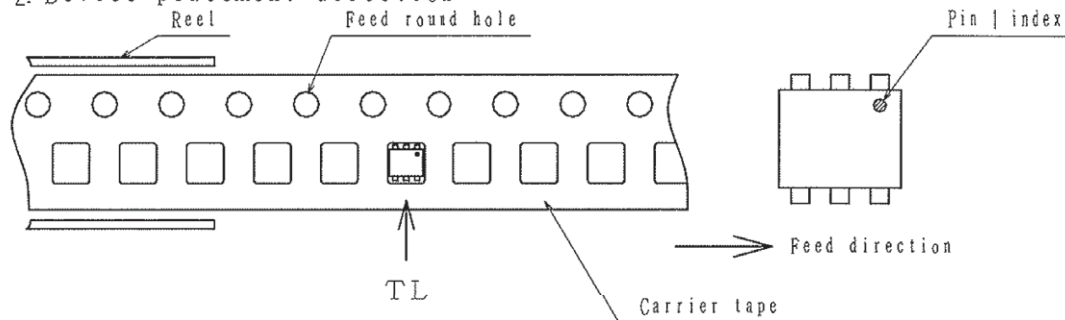
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

2-1. Carrier tape size (unit:mm)



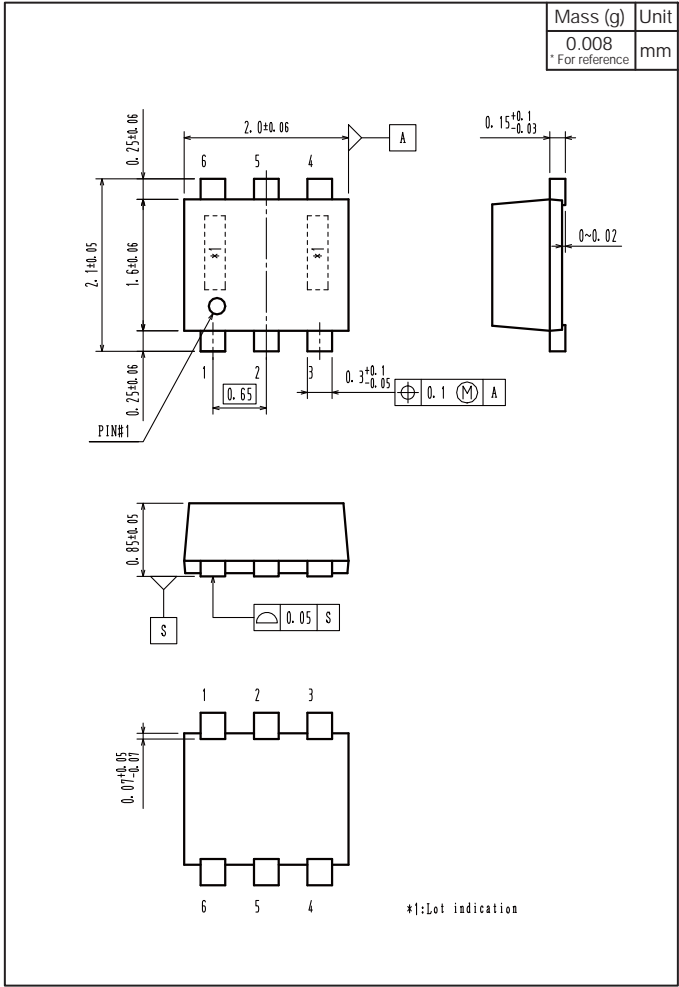
2-2. Device placement direction



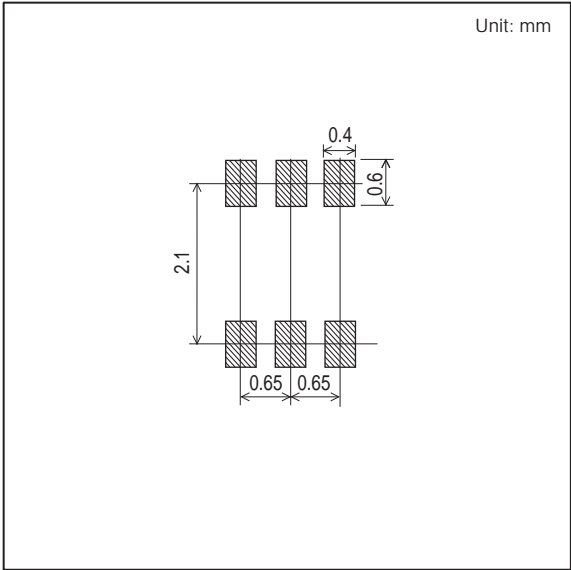
Those with pin 1 index on the feed hole side.....TL

SMA5101

Outline Drawing
SMA5101-TL-H



Land Pattern Example



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