

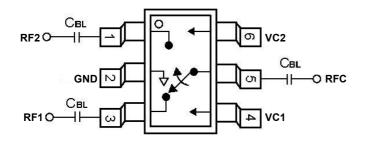
## **SW408**

#### RFIC 2017.05 Update Rev3.2

#### DESCRIPTION

SW408 is a GaAs switch designed for 0.1 to 3GHz frequency band application. This switch can be used for Tx/Rx selection or antenna diversity function of many wireless communication systems. SW408 is housed in a low cost SOT-363 lead (Pb) free plastic package, and features low insertion loss, low current consumption and fast switching speed.

### **Pin Assignment**



DC blocking capacitors are necessary for all RF ports. The typical value of  $C_{BI}$  is 22pF for ISM band application.

#### Absolute Maximum Ratings

Parameter	Rating	<u>Unit</u>
DC Power Supply For Collector	+6	V
RF Input Power 0.5 - 2.5GHz	+36	dBm
Operating Ambient Temperature	-40 to +85	°C
Storage Temperature	-60 to +150	°C
MSL	LEVEL 1	
ESD	HBM Class 1A	



#### **Caution: ESD Sensitive** Appropriate precaution in handling, packaging And testing devices must be observed.

For more information, please contact us at: Sales Dept. Tel: +886-2-2698-1022

e-mail: sales@rfintc.com

#### **KEY FEATURES**

- Insertion loss:
  - 0.4dB @ 2.5GHz
- Isolation:
- 26dB @ 2.5GHz
- Low current consumption
- · Low switching time
- · Low cost SOT-363 lead (Pb) free
- plastic package

### Logic Control Table

VC1	VC2	RFC- RF1	RFC- RF2
High	Low	Off	On
Low	High	On	Off

High = +2V to +5VLow = +0V to +0.2V

#### **Important Note:**

The information provided in this datasheet is deemed to be accurate and reliable only at present time. RFIC Technology Corp. reserves the right to make any changes to the specifications in this datasheet without prior notice.



0.1 - 3GHz SPDT Switch

### RFIC 2017.05 Update Rev3.2

### **Electrical Characteristics for +3V Control Voltages**

	Specification			Notes	
Parameter	arameter Min Typ. Max Units	Units			
Insertion Loss		0.25	0.4	dB	DC – 1GHz
		0.35	0.5		1 – 2GHz
		0.4	0.6		2 – 3GHz
Isolation	23	27		dB	DC – 1GHz
	23	25			1 – 2GHz
	23	26			2 – 3GHz
VSWR		1:2:1	1:4:1		DC – 1GHz
		1:2:1	1:4:1		1 – 2GHz
		1:3:1	1:4:1		2 – 3GHz
IP0.1dB		29		dBm	H/L = 3/0V for 0.5 – 3GHz
		32			H/L = 5/0V for 0.5 – 3GHz
IP3		50		dBm	Two-tone input power+5dbm
					@0.5 – 3GHz
Switching Time		30		ns	10/90% or 90/10% RF
_		40			50% CLT to 90/10% RF
Control Current		1	3	uA	H/L = 5/0V

Logic High = 3V; Logic Low = 0V; TA = 25°C; unless otherwise noted.

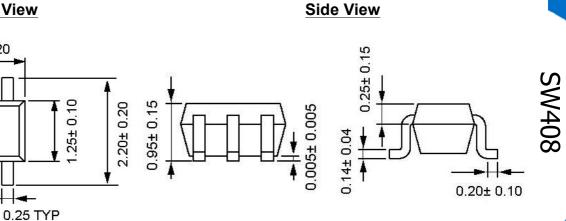
Note: 1. All measurements made in a 50 ohm system.

2. DC=300MHz

 $2.00 \pm 0.20$ 

### SOT-363 Package Outline

**Top View** 



For more information, please contact us at:

0.65 BSC

Sales Dept.

PIN 1

Mark

PIN 1

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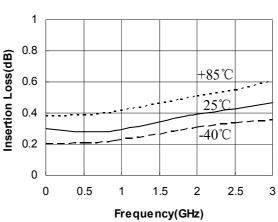




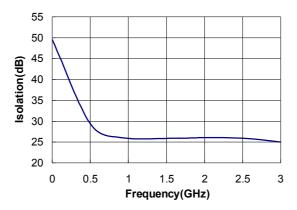
0.1 - 3GHz SPDT Switch

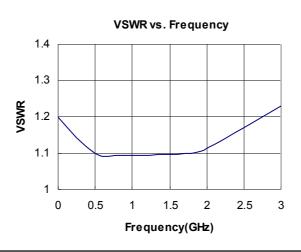
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### Typical Characteristic Chart (0, +3V)









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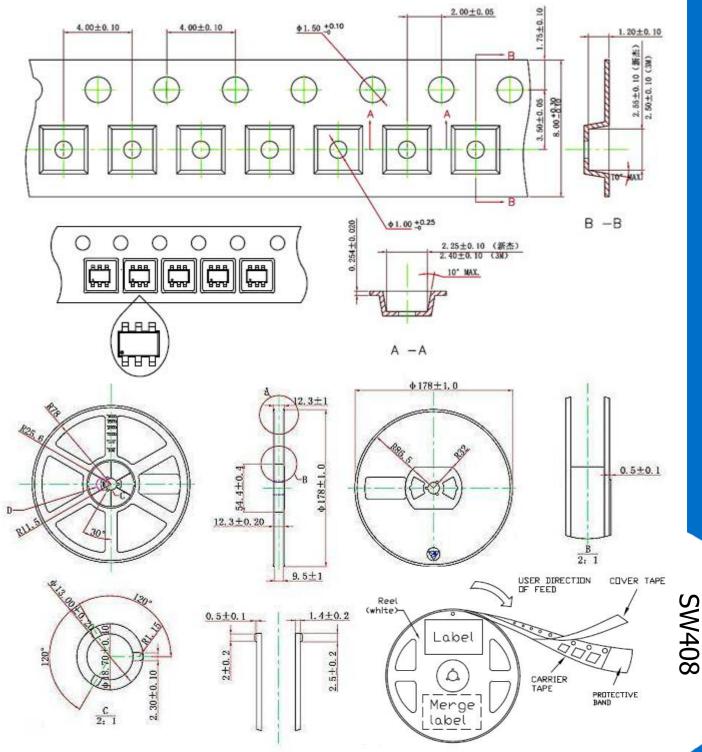


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## **Packing**



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### **Ordering information**

Part Number	Reel Size	Tape/Reel
SW408	7 inch	3000 PCS

### Marking





# **SW408**

0.1 - 3GHz SPDT Switch

### RFIC 2017.05 Update Rev3.2

The product is designed and manufactured for consumer application only and is not intended for any application listed below which requires especially high reliability for the prevention of such defect which could lead to personal injury, death, physical or environmental damage.

- Aircraft equipment.
- Aerospace equipment.
- Undersea equipment.
- Medical equipment.
- Life-saving or life-sustaining applications
- Transportation equipment (vehicles, trains, ships, etc.).
- Traffic signal equipment.
- Disaster prevention / crime prevention equipment.
- Application of similar complexity and/ or reliability requirements to the applications listed in the above.

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 BGS18GA14E6327XTSA1
 MASWS0204TR-3000
 MASWS0201TR
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 TR3000
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