



**Data Sheet**  
**915MHz SAW 3030**  
**SPT915M3030A**

V1.0

**Description:**

The Spectron SPT915M3030A is a SAW filter that work frequency ranges from 902 to 928MHz. It is designed for applications in remote controls, IOT equipments and Information & Communications filed.

The SPT915M3030A provides +20 dBm power handling, low insertion loss and high out of band rejection.

The design and manufacturing of the SPT915M3030A exploit Spectron's exclusive TSAW technology to deliver competitive performance against state of the art at a low cost.

The SPT915M3030A is compatible with high volume, lead-free SMT soldering processes.

**Features:**

- Single-Ended Input and Output
- Terminating Impedance: 50  $\Omega$
- RoHS Compliant

**Specifications:**

- Operation Temperature: -40°C to +85°C
- Usable passband 26.0 MHz
- Compact miniature size
  - 3.0 mm  $\times$  3.0 mm footprint
  - 1.25 mm max-height

**Applications:**

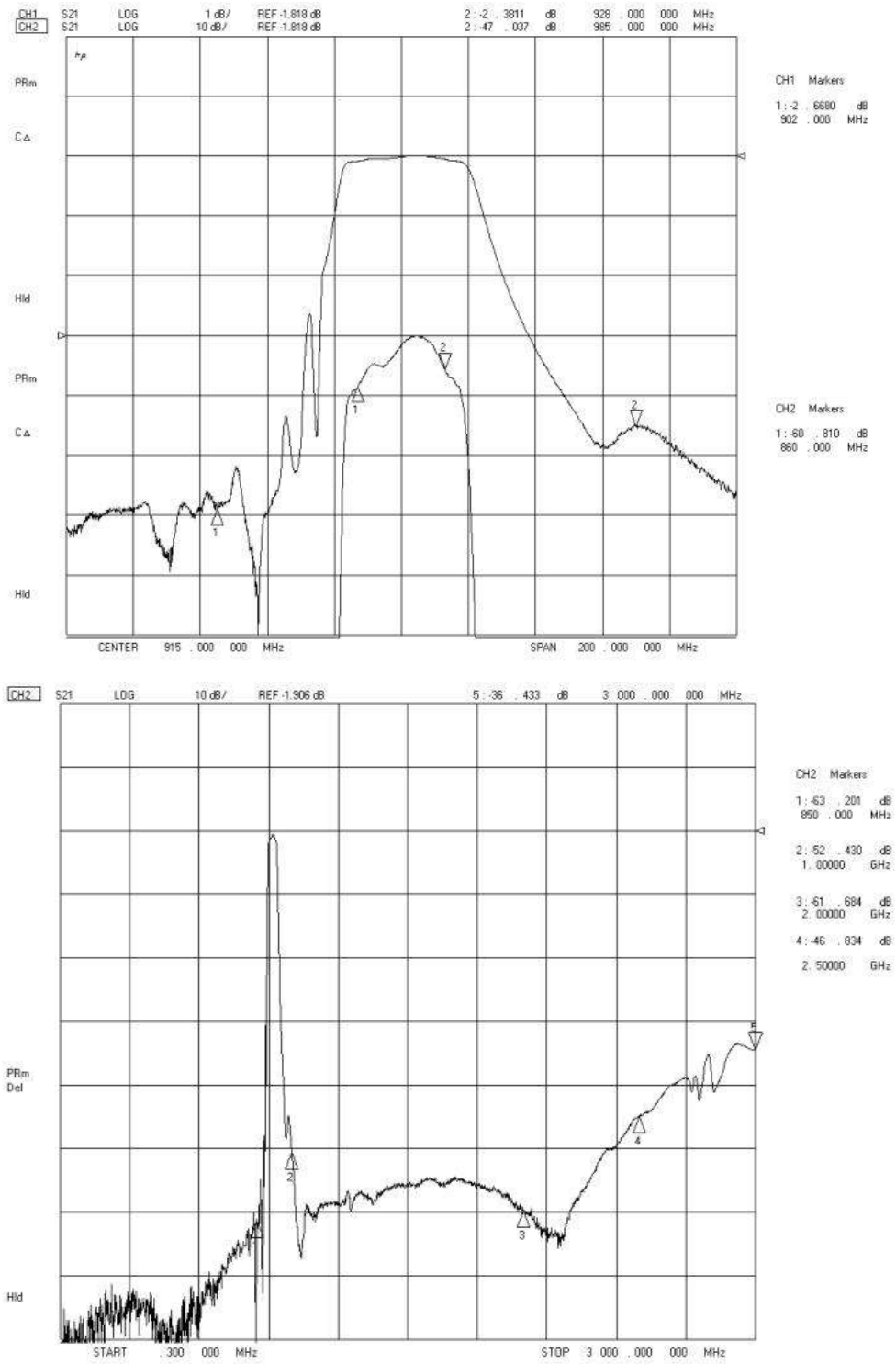
- Remote controls
- IOT equipments
- Information & Communications Devices

**Electrical Specifications****Table 1** Electrical Specifications.

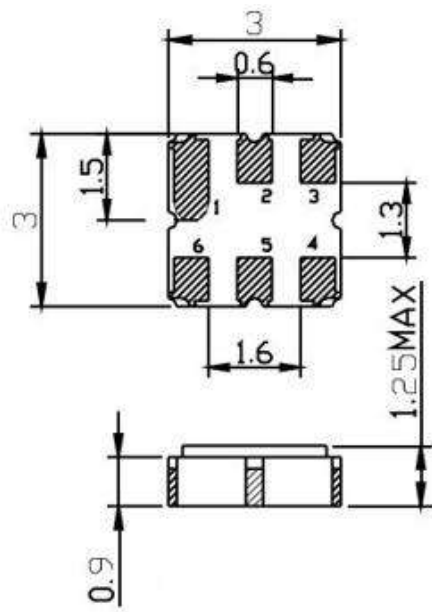
Test Temperature: 25°C±2°C

Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		915.00		MHz
Insertion Loss(min)	IL		1.9	2.2	dB
Insertion Loss 902.00 - 928.00 MHz	IL		2.4	2.9	dB
Amplitude Ripple (p-p) 902.00 - 928.00 MHz	$\Delta\alpha$		0.8	1.0	dB
3dB Bandwidth	BW3dB	38.0	38.5		MHz
Group Delay Ripple 902.00 - 928.00 MHz	GDR		20.0	40.0	ns
Absolute Attenuation	$\alpha$				
DC - 860.00 MHz		50.0	53.0		dB
985.00 - 1100.00 MHz		40.0	43.0		dB
1100.00 - 2000.00 MHz		48.0	53.0		dB
2000.00 - 2500.00 MHz		40.0	43.0		dB
2500.00 - 3000.00 MHz		30.0	34.0		dB
VSWR 902.00 - 928.00 MHz			1.8:1	2.0:1	/

Figure 1 Electrical Characteristics: Frequency response.

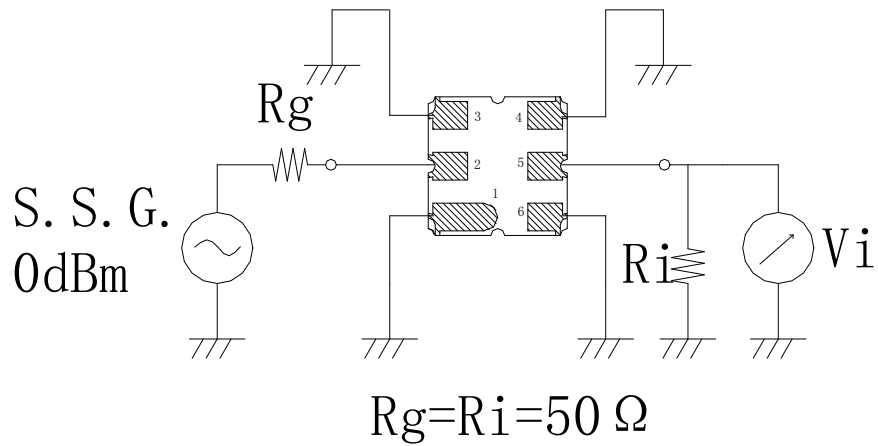


Package & Dimensions



Pin No.	Description
2	Input
5	Output
1,3,4,6	Ground

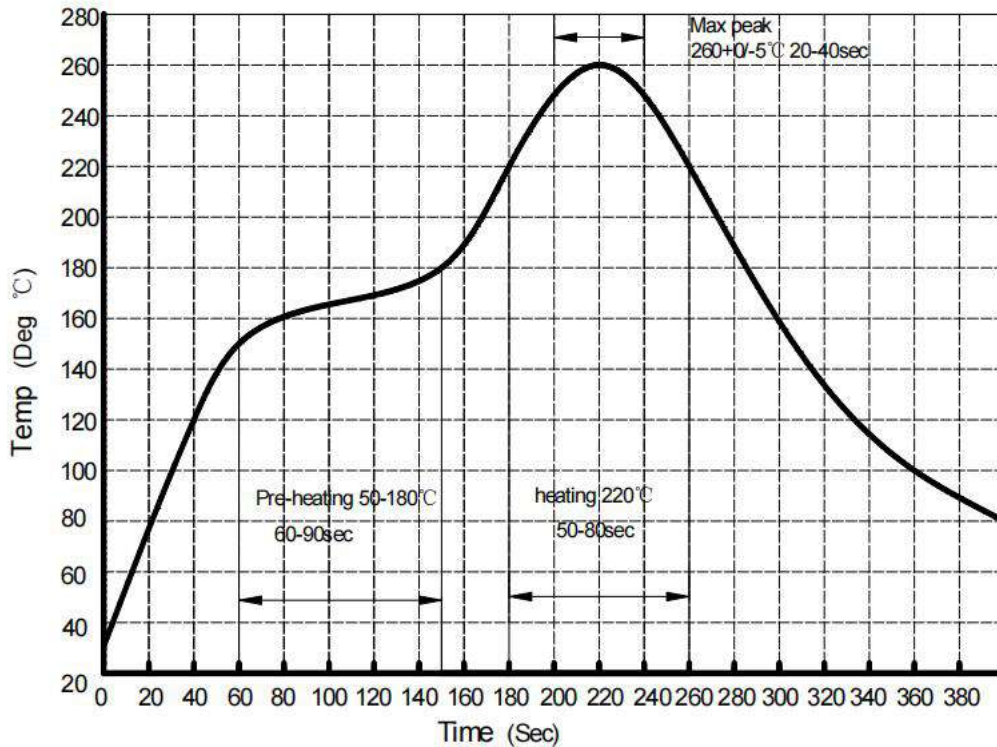
Test circuit



Maximum Ratings

Item		Value	Unit
DC Voltage	$V_{dc}$	3	V
Operation Temperature	T	-40 ~ +85	°C
Storage Temperature	$T_{stg}$	-55 ~ +125	°C
RF Power Dissipation	P	20	dBm

## Recommended SMT Solder Profile



## Ordering Information

Part Number	Number of Devices	Container
SPT915M3030A	1000pcs	Tape and Reel

## Reliability

No.	Test item	Test condition
1	Temperature Storage	Temperature: 85°C±2°C , Duration: 250h , Recovery time: 2h±0.5h (2) Temperature: -55°C±3°C , Duration: 250h ,Recovery time: 2h±0.5h
2	Humidity Test	Conditions: 60°C±2°C ,90~95% RH Duration: 250h
3	Thermal Shock	Heat cycle conditions: TA=-55°C±3°C, TB=85°C±2°C, t1=t2=30min, Switch time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.
4	Vibration Fatigue	Frequency of vibration: 10~55Hz Directions: X,Y and Z Amplitude:1.5mm Duration: 2h

5	Drop Test	Cycle time: 10 times	Height: 1.0m
6	Solder Ability Test	Temperature: 245°C±5°C Depth: DIP--2/3 , SMD--1/5	Duration: 3.0s--5.0s
7	Resistance to Soldering Heat	(1) Thickness of PCB:1mm , Solder condition: 260°C±5°C , Duration: 10±1s (2) Temperature of Soldering Iron: 350°C±10°C, Duration: 3~4s, Recovery time : 2 ± 0.5h	

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