

Data Sheet 865MHz SAW 3030 SPT865M30E

V1.0

Features:

- Ceramic Package for Surface Mounted Technology (SMT)
- RoHS compatible
- Package size 3.00x3.00x1.25mm³
- Electrostatic Sensitive Device(ESD)

Specifications:

- Operation Temperature:-40°C to +85°C
- Compact miniature size
 - 3.0 mm × 3.0 mm footprint
 - 1.25 mm max-height

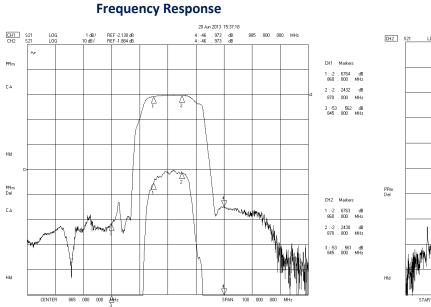
Applications:

- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 10.0 MHz

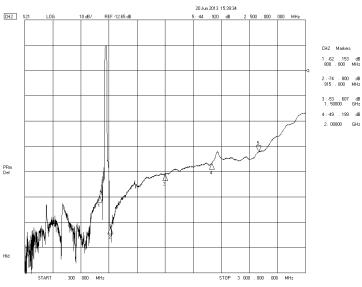
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		865.00		MHz
Insertion Loss(min)	IL		2.3	2.5	dB
Insertion Loss 860.00 - 870.00 MHz	IL		2.7	3.2	dB
Amplitude Ripple (p-p) 860.00 - 870.00 MHz	$ riangle \alpha$		0.5	1.0	dB
Group Delay Ripple 860.00 - 870.00 MHz	GDR		30.0	60.0	ns
Absolute Attenuation	α				
DC - 845.00 MHz		45.0	50.0		dB
885.00 - 915.00 MHz		40.0	45.0		dB
915.00 - 1500.00 MHz		45.0	50.0		dB
1500.00 - 2500.00 MHz		35.0	40.0		dB
2500.00 - 3000.00 MHz		23.0	25.0		dB
Input VSWR 860.00 - 870.00 MHz			1.4:1	2.0:1	/
Output VSWR 860.00 - 870.00 MHz			1.4:1	2.0:1	/

Electrical Specifications. Test Temperature: $25^{\circ}C \pm 2^{\circ}C$

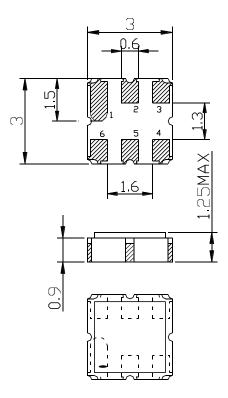
Frequency Characteristics.





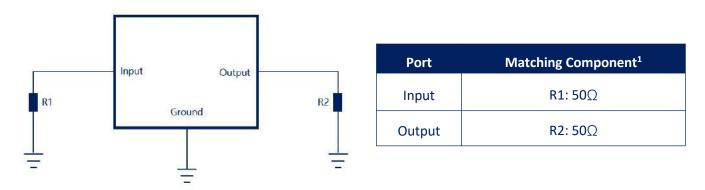


Package & Dimensions



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

Matching

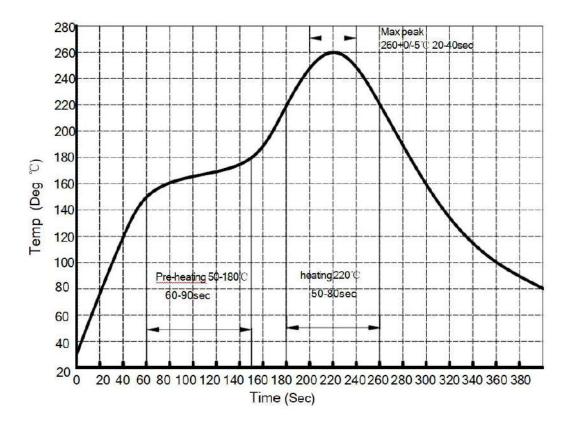


Matching component values shown are recommended based on the Spectron evaluation board. Value adjustment may be required on the end-user's circuit boards for the selected component manufacturer and PCB material.

Maximum Ratings

Item		Value	Unit
DC Voltage	Vdc	5	V
Operation Temperature	т	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C
RF Power Dissipation	Р	20	dBm

Recommended Reflow Soldering Diagram



Ordering Information

Part Number	Number of Devices	Container
SPT865M30E	1000pcs	Tape and Reel

Reliability

No.	Test item	Test condition	
1	Temperature Storage	Temperature: $85^{\circ}C\pm 2^{\circ}C$, Duration: 250h, Recovery time: 2h±0.5h (2) Temperature: $-55^{\circ}C\pm 3^{\circ}C$, 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 \pm 3°C, TB=85°C \pm 2°C, t1=t2=30min, Switch time: <3min, Cycle time: 100 times, Recovery time: 2h \pm 0.5h.	
4	Vibration Fatigue	Frequency of vibration: 10~55HzAmplitude:1.5mmDirections: X,Y and ZDuration: 2h	
5	Drop Test	Cycle time: 10 times Height: 1.0m	
6	Solder Ability Test	Temperature: 245°C±5°CDuration: 3.0s5.0sDepth: DIP2/3 , SMD1/5	
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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