# **One-Port SMD SAW Resonator**

**ASR868.35E** 







Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable

## **FEATURES:**

- One port resonator
- SMD ceramic package: 5.0 x 5.0 x 1.35mm
- Provides reliable, fundamental mode, quartz frequency stabilization

#### > APPLICATIONS:

- Remote control
- Wireless security

## > STANDARD SPECIFICATIONS:

## **Maximum Rating**

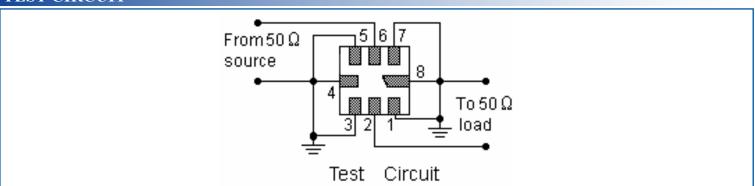
Parameters	Minimum	Typical	Maximum	Units	Notes
DC Voltage between any terminals	-30		+30	$V_{DC}$	
Operation Temperature	-40		+85	$^{\circ}\!\mathrm{C}$	
Storage Temperature	-40		+85	$^{\circ}\!\mathbb{C}$	
RF Power Dissipation			0	dBm	

#### **Key Electrical Specifications**

Test temperature: +25°C±2°C; Terminating source impedance: 50Ω; Terminating load impedance: 50Ω

	Parameters	Minimum	Typical	Maximum	Units	Notes
Center Frequency (f <sub>0</sub> )		868.200	868.350	868.500	MHz	
Insertion Loss			1.6	2.2	dB	
Quality Factor	Unloaded Q		9000			
	50Ω Loaded Q		1500			
Temperature Stability	Turnover Temperature	25		55	$^{\circ}\! \mathbb{C}$	
	Frequency Temperature Coefficient		0.032		ppm/°C <sup>2</sup>	
RF Equivalent RLC Model	Motional Resistance R <sub>1</sub>		20	29	Ω	
	Motional Inductance L <sub>1</sub>		33.0079		μН	
	Motional Inductance C <sub>1</sub>		1.0188		fF	
	Shunt Static Capacitance C <sub>0</sub>	2.25	2.55	2.85	pF	
Frequency Aging (first year)			≤10		ppm/yr	
DC Insulation Resistance		1.0			ΜΩ	

#### > TEST CIRCUIT







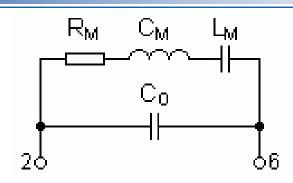
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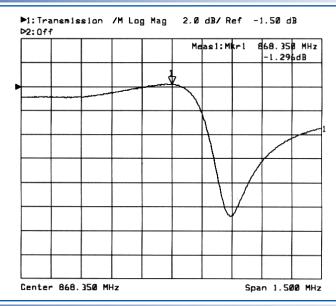




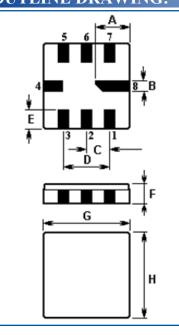
## **EQUIVALENT MODEL:**



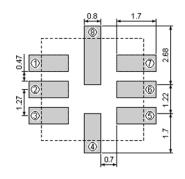
## TYPICAL FREQUENCY RESPONSE:



## **OUTLINE DRAWING:**



## Recommended Land Pattern



Item	Dimension (mm)
A	2.08
В	0.6
C	1.27
D	2.54
Е	1.2
F	1.35
G	5.0
Н	5.0

Pin #	Function
2	Terminal 1
6	Terminal 2
4,8	Case Ground
1.3.5.7	NC

**Dimensions: mm** 

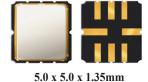




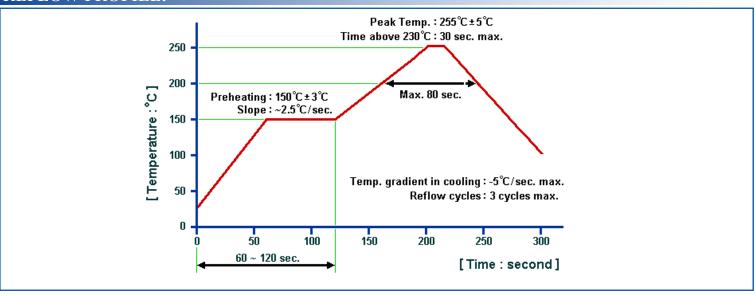
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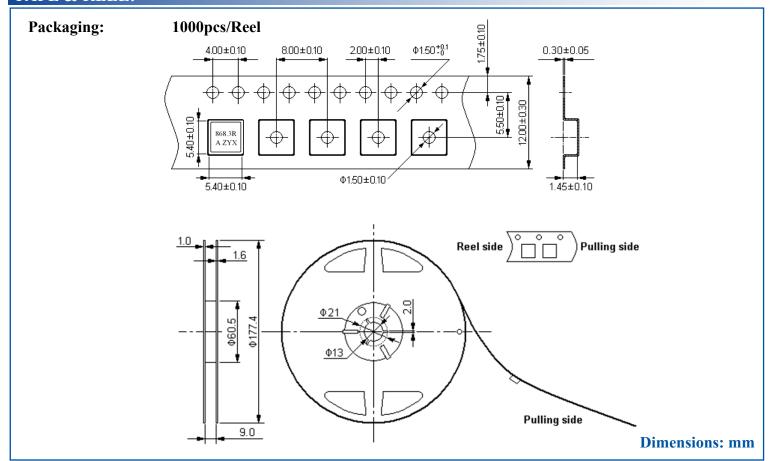




## **REFLOW PROFILE:**



## TAPE & REEL:



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