## Low Frequency Reflowable Tuning Fork Crystal



Pb in high melting temperature type solders exempt 7(a) and Pb in RoHS/RoHS II Compliant copper alloy up to 4% exemption 6(c) per RoHSII 2011/65/EU Annex



5.2 x 1.45 x 1.45mm

### **Moisture Sensitivity Level (MSL) = Level 1**

#### **FEATURES:**

- Miniature square-body, formed lead SMD package: 5.2 x 1.45 x 1.45mm
- Excellent shock and vibration resistance
- Reflow Capable
- Low cost for consumer applications

### > APPLICATIONS:

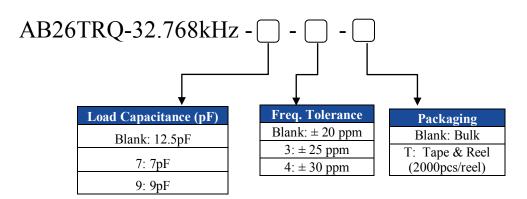
- Real time clock
- Measuring instruments
- Blue-tooth and wireless applications

### **STANDARD SPECIFICATIONS:**

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency		32.768		kHz	
Operating Temperature	-40		+85	°C	
Turnover Temperature	+20	+25	+30	°C	
Storage Temperature	-55		+85	°C	
Frequency Tolerance @+25°C	-20		+20	ppm	See options
Frequency Coefficient (B)	-0.035±10%		ppm/°C <sup>2</sup>		
Equivalent series resistance (R1)		50	65	kΩ	
Shunt capacitance (C0)		0.9		pF	
Motional capacitance (C1)		2.1		fF	
Load capacitance (CL)		12.5		pF	See options
Drive Level			1	μW	
Aging	-3		+3	ppm	@25℃ First year
Insulation Resistance	500			ΜΩ	

### OPTIONS & PART IDENTIFICATION:

(Left blank if standard)



Note: Please contact Abracon for tighter Freq. tolerance





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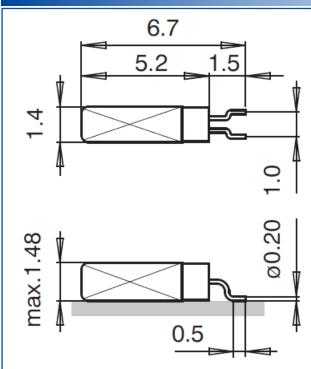


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## **OUTINE DRAWING:**

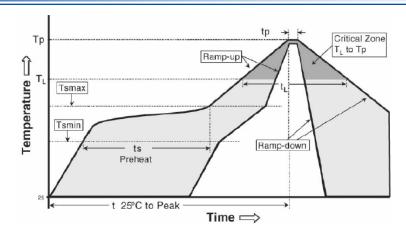


### Recommended Land Pattern



**Dimensions: mm** 

### RECOMMENDED REFLOW PROFILE:



Temperature Range	Symbol	Condition	Unit				
Average Ramp up Rate	(Ts <sub>max</sub> to Tp)	3°C/second max	°C/s				
Ramp Down Rate	T <sub>cool</sub>	6°C/second max	°C/s				
Time 25°C at Peak Temperature	T <sub>to-peak</sub>	8 minutes max	m				
Preheat							
Temperature Min	Tsmin	150	°C				
Temperature Max.	Ts <sub>max</sub>	200	°C				
Time Ts <sub>min</sub> to Ts <sub>max</sub>	Ts	60-180	Sec				
Soldering above Liquidus							
Temperature Liquidus	$T_{\rm L}$	217	°C				
Time above Liquidus	$t_{\rm L}$	60-150	Sec				
Peak Temperature							
Peak Temperature	Тр	260	°C				
Time within 5°C of Peak Temperature	tp	20-40	Sec				





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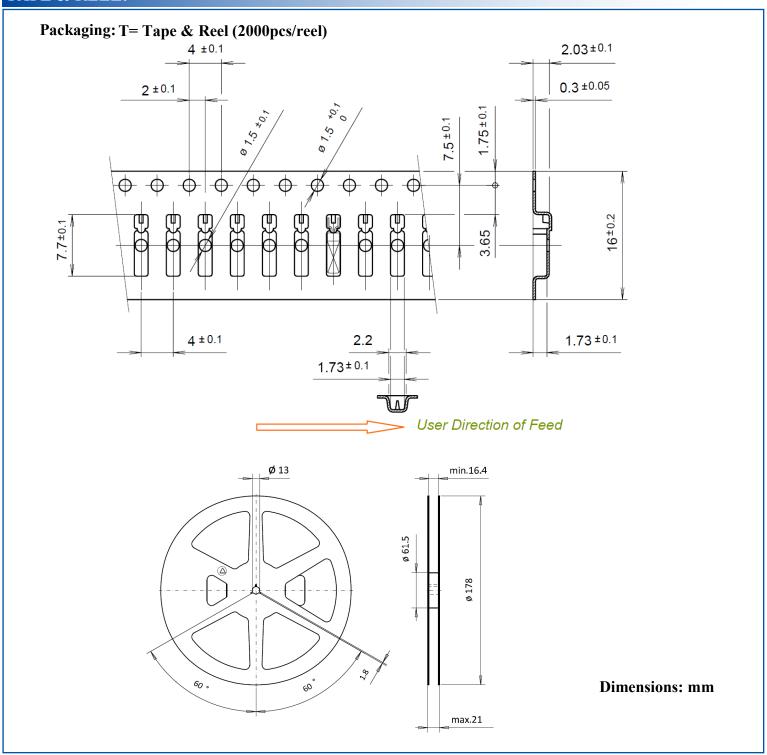


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### **TAPE & REEL:**



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