# 32.768kHz SMD Low ESR Crystal



#### 3.2 x 1.5 x 0.9 mm

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

Pb

#### **FEATURES:**

ABS07-LR

- Guaranteed ESR of  $50k\Omega$  maximum for low power designs
- 0.9mm height ideal for high density circuit boards
- Seam sealed ceramic package offers excellent environmental & heat resistance
- Extended operating temperature of -40°C to +85°C for industrial applications

### **STANDARD SPECIFICATIONS:**

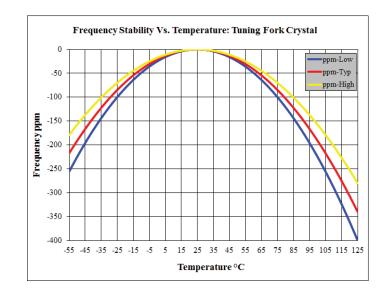
- > **APPLICATIONS**:
  - Power sensitive designs requiring low ESR crystal
  - Communication & measurement equipment
  - Commercial, consumer & industrial applications
  - Wireless communications

**RoHS/RoHS II Compliant** 

• PDA and smartphone

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency	32.768			kHz	
Operation Mode	Flexural Mode (Tuning Fork)				
Operating Temperature	-40		+85	°C	
Storage Temperature	-55		+125	°C	
Frequency Tolerance @+25°C	-20		+20	ppm	See options
Temperature Coefficient:	-0.040	-0.034	-0.028	ppm/°C <sup>2</sup>	
Turn-over temperature:	+20	+25	+30	°C	
Equivalent series resistance @+25°C			50	kΩ	
Shunt capacitance (C0)		1.3		pF	
Load capacitance (CL)		6		pF	
Drive Level		0.1	0.5	μW	
Q value		25000			
Aging@25°C±3°C	-3		3	ppm	First year
Insulation Resistance	500			MΩ	( <i>a</i> ) $100$ Vdc $\pm 15$ V

#### **TYPICAL FREQUENCY VS. TEMPERATURE CHARACTERISTICS**





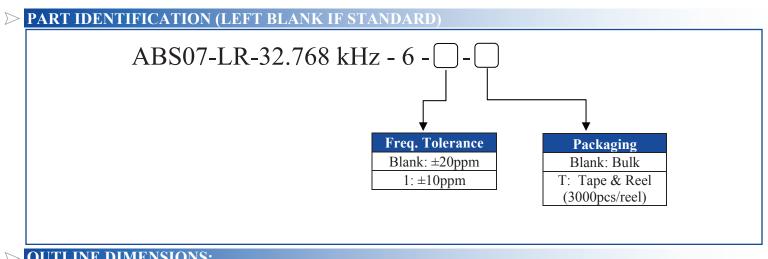
2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 03.27.15** Ph. 949.546.8000 | Fax. 949.546.8001 Visit www.abracon.com for Terms and Conditions of Sale

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**RoHS/RoHS II Compliant** (Pb)

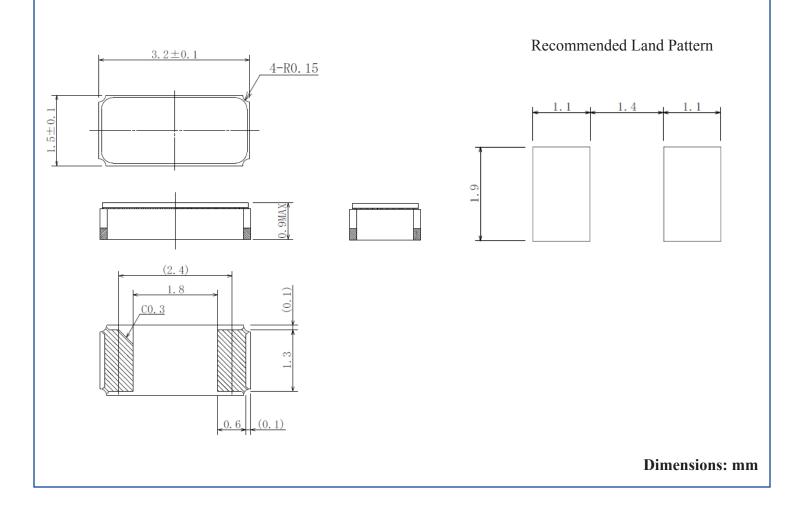
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ABRACON IS

ISO 9001:2008 CERTIFIED





# 32.768kHz SMD Low ESR Crystal

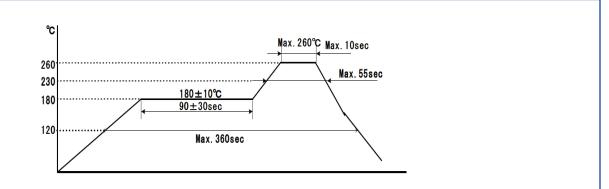


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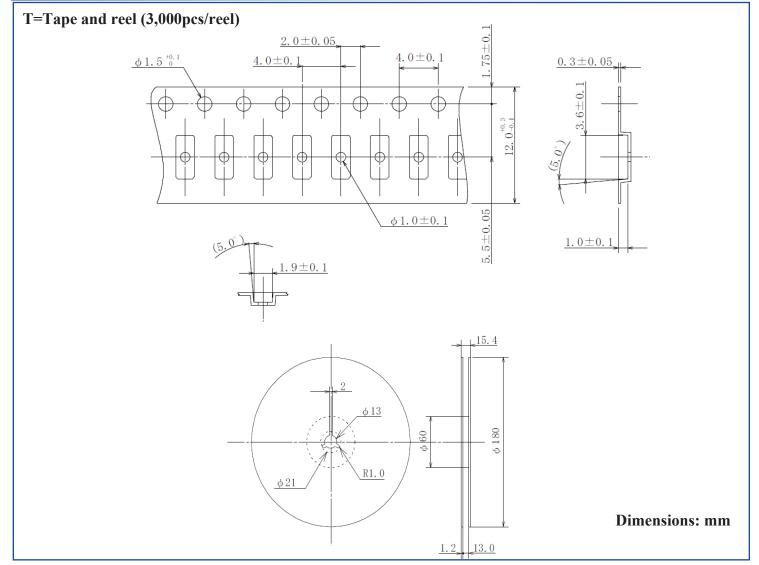
**RoHS/RoHS II Compliant** 

3.2 x 1.5 x 0.9 mm





### **▷** TAPE & REEL:



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