

32.768 kHz SMD LOW PROFILE CRYSTAL

ABS09



RoHS
Compliant

ABS09



4.1 x 1.5 x 0.9 mm

ABS09 is not recommended for new designs. Please consider our reduced size ABS07 or ABS06.

FEATURES:

- Low frequency in small size SMD
- 0.9mm height ideal for high density circuit boards
- Ceramic package offers excellent environmental & heat resistance
- Extended temperature -40°C to +85°C for industrial applications

APPLICATIONS:

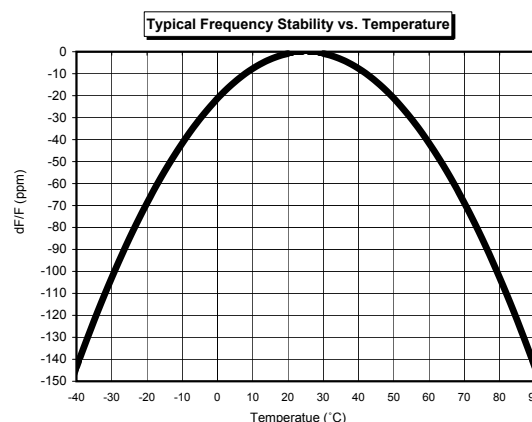
- Wide range in communication & measuring equipment
- Commercial & Industrial applications
- Wireless communications
- PDA and Palm Pilots

STANDARD SPECIFICATIONS:

PARAMETERS

ABRACON P/N	ABS09
Nominal Frequency	32.768 kHz
Operating Temperature	-40°C to +85°C
Turn-over Temperature	+25°C to $\pm 5^\circ\text{C}$
Storage Temperature	-55°C to +125°C
Frequency Tolerance	± 20 ppm max.
Temperature Coefficient (β)	-0.034 ± 0.006 ppm/T ²
Equivalent Series Resistance	70 kohms max.
Load Capacitance CL	12.5 pF (see option)
Drive Level	1.0 μW max.
Aging (first year) 25°C	± 5 ppm max.
Insulation Resistance	500 M Ω with 100 Vdc $\pm 15\text{V}$
Shunt capacitance Co	1.0pF typ.
Motional capacitance C1	2.0fF typ.

TUNING FORK CRYSTAL TEMPERATURE CURVE



OPTIONS AND PART IDENTIFICATION:

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ABS09-32.768kHz-□ - □ - □

Load Capacitance		Freq. Tolerance		Packaging	
Blank	12.5pF	1	± 10 ppm	Blank	Bulk
9	9pF	4	± 30 ppm	T	Tape and Reel
7	7pF				

*Contact ABRACON for non-standard load capacitance

