

# LOW PROFILE, kHz FREQUENCY CRYSTALS MOLDED PLASTIC SURFACE MOUNT ABS25



8.7 x 3.8 x 2.5 mm

## FEATURES:

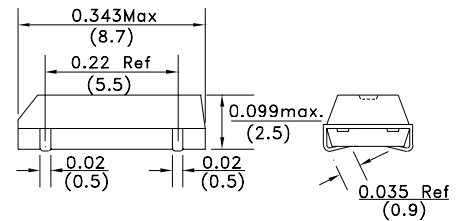
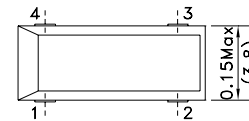
- Perfect for SMT applications with limited space.
- Low power consumption ideal for portable equipment.
- Low profile 2.5 mm.
- Plastic molded package with internal tubular type quartz crystal.
- Excellent heat resistance.
- Reflow capable.
- Watch frequency.

## APPLICATIONS:

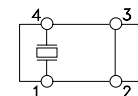
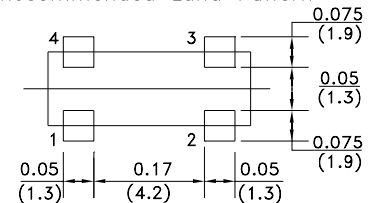
- Clock source for communication or A/V equipment, Measuring instruments.
- Real time clock.

## STANDARD SPECIFICATIONS

Standard Frequency Range	32.768kHz	30kHz - 165kHz
Operating Temperature	-40°C to +85°C	
Storage Temperature	-55°C to +125°C	
Frequency Tolerance @ 25°C	±20ppm max. (See Options)	±30ppm max.(See Options)
Frequency Stability over Temp.	-0.034 ±0.006ppm / (25-T) <sup>2</sup> (See Note)	
Turnover Temperature	25°C ±5°C	
Equivalent Series Resistance (ESR)	50kΩ max.	30kΩ max. to 50kΩ max.
Shunt Capacitance C <sub>0</sub>	1.35pF max.	0.8 ~ 1.7pF typ.
Motional Capacitance C <sub>1</sub>	0.003pF typ.	0.001 ~ 0.004pF typ.
Load Capacitance C <sub>L</sub>	12.5pF (See Options)	
Capacitance Ratio C <sub>0</sub> /C <sub>1</sub>	450 typical	425 ~ 800 typical
Drive Level	1μW max.	
Aging (Per Year)	±3ppm max.	±5ppm max.
Insulation Resistance	500MΩ min. at 100Vdc ±15 V	



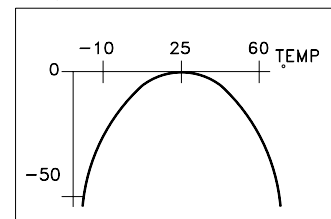
Recommended Land Pattern



Electrode Arrangement

Dimensions: Inches (mm)

FREQUENCY vs TEMPERATURE CURVE



**NOTE:** Example; Stability at -20°C is:  $-0.034 \times (25 - [-20])^2 = -68.8\text{ppm}$ .

Environmental, and mechanical specifications, see appendix C. Group 7.

Marking, see appendix G.

Tape and Reel, see appendix H.(3,000 pcs/reel)

Reflow profile, see appendix E.

Recommended handling, see appendix F.

Application notes, see appendix A.

## ORDERING OPTIONS

ABS25 - Frequency - CL - Tolerance - Packaging

XX.XXXX kHz

Load cap. in pF

-1 for ± 10ppm\*  
-7 for ± 15ppm\*  
-2 for ± 20ppm  
-3 for ± 25ppm  
-4 for ± 30ppm

- T  
(Tape & Reel)

\* Please call us for availability

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NOTE: Left blank if standard • All specifications and markings subject to change without notice

29 Journey • Aliso Viejo, CA 92656 • USA  
(949) 448-7070 • FAX: (949) 448-8484

E-MAIL: [abinfo@abracon.com](mailto:abinfo@abracon.com) • INTERNET ADDRESS: [www.abracon.com](http://www.abracon.com)

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