

# MOULDED PLASTIC SURFACE MOUNT

## LOW PROFILE 32.768 kHz CRYSTALS

ABS15



6.8 x 3.0 x 1.55 mm

ABS15

Pb in High Temperature Solder  
(exempt per RoHS 2002/95/EC Annex (7))

**RoHS**  
Compliant

### FEATURES:

- Small SMD type, 1.55 mm height.
- Suitable for reflow soldering.
- Heat resistant packaging.

### APPLICATIONS:

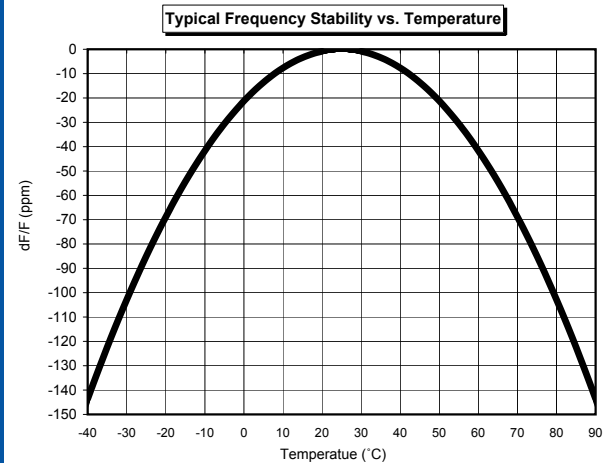
- Ideal for high-density circuit application.
- Clock source for communications equipment, Measuring instruments.
- Real time clock.

### STANDARD SPECIFICATIONS:

#### PARAMETERS

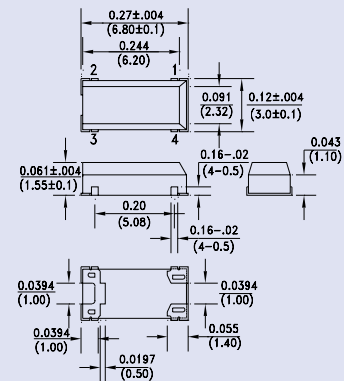
Frequency Range	<b>32.768kHz</b>
Operation Mode	Fundamental
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +125°C
Frequency Tolerance @ 25°C	±20ppm max.
Frequency Stability over Temp.	-0.034 ±0.006ppm / (25-T) <sup>2</sup>
Turnover Temperature	25°C ±5°C
Equivalent Series Resistance (ESR)	65kΩ max.
Motional Capacitance C <sub>1</sub>	0.003pF typ.
Load Capacitance C <sub>L</sub>	12.5pF (See Options)
Drive Level	1μW max.
Aging @ 25°C First Year	±5ppm max.
Insulation Resistance	500MΩ min. at 100Vdc ±15V

### TUNING FORK CRYSTAL TEMPERATURE CURVE



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.

### OUTLINE DRAWING:



### OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ABS15- Frequency-  -

CL Option
Please specify load cap. in pF (ex. 6pF)

Packaging	
Blank	Bulk
T	Tape and Reel