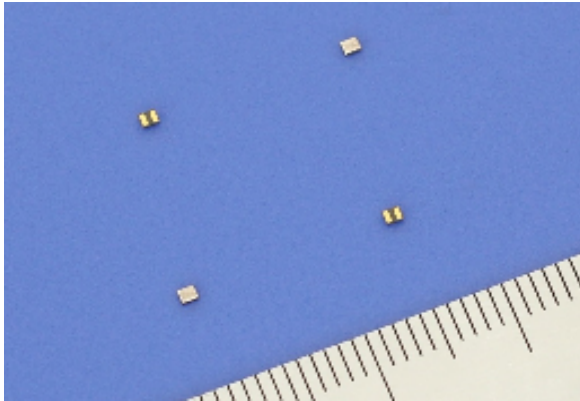


# SC-12S



## FEATURES

- Ultra small size package (1.2x1.0x0.5mm max.).
- SMD type suitable for high density surface mounting.
- Excellent shock and heat resistance.
- Pb-free.
- Complies with EU RoHS directive.
- A crystal resonator processed by high reliable photo-lithographic technology inside.

## APPLICATIONS

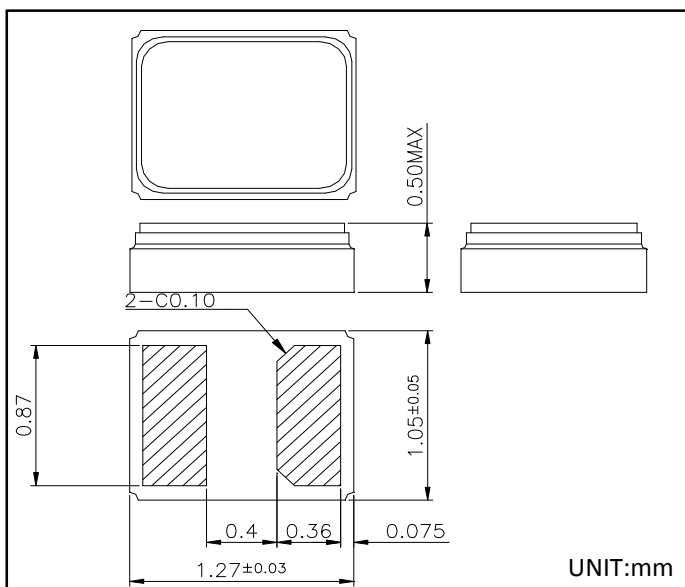
Mobile Phone, Wearable, Module, Sub-clock function for a variety of Microcomputer, etc.

## STANDARD SPECIFICATIONS

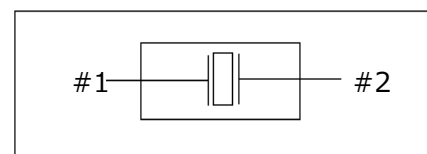
Conditions where not specified (Temperature: 25±2°C, DL: 0.1μW)

Item	Symbol	Specifications	Conditions / Note
Nominal Frequency	f_nom	32.768kHz	
Frequency Tolerance	f_tol	±20×10 <sup>-6</sup>	※Please contact us for inquiries regarding available tolerance.
Turnover Temperature	Ti	+25±5°C	
Parabolic Coefficient	B	(-0.036±10%)×10 <sup>-6</sup> /°C <sup>2</sup>	
Load Capacitance	C <sub>L</sub>	6.0pF, 7.0pF, 9.0pF, 12.5pF	※Please contact us for inquiries regarding available CL.
Motional Resistance (ESR)	R <sub>1</sub>	90kΩ max.	
Absolute Maximum Drive Level	DLmax.	0.3μW max.	
Level of Drive	DL	0.1μW typ.	
Shunt Capacitance	C <sub>0</sub>	1.4pF typ.	
Frequency Ageing	f_age	±5×10 <sup>-6</sup>	+25±3°C, First Year
Operating Temperature	T_use	-40~+85°C	
Storage Temperature	T_stg	-55~+125°C	Piece part basis

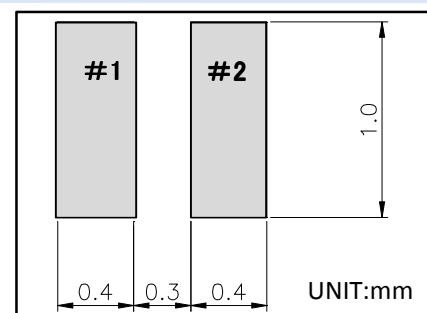
## DIMENSIONS



## INTERNAL LEAD CONNECTIONS



## RECOMMENDED SOLDERING PATTERN



Remark: Please make sure there is no pattern under SC-12S on the circuit board.

## Seiko Instruments Inc.

Electronic Components Sales Head Office  
 1-8, Nakase, Mihamaku, Chiba-shi, Chiba 261-8507, Japan  
 Tel : +81-43-211-1207 Fax : +81-43-211-8030  
[http : //www.sii.co.jp/en/quartz/](http://www.sii.co.jp/en/quartz/)