

# FEATURES

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

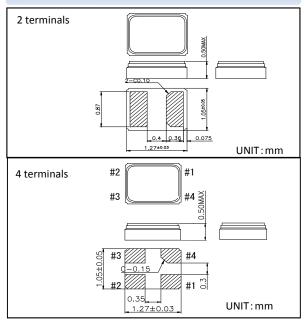
## APPLICATIONS

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

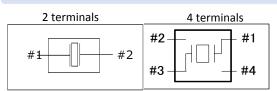
#### Conditions where not specified (Temperature: $25\pm2$ °C, DL;0.1µW)

Item	Symbol	Specifications		Conditions / Note
		2 terminals	4 terminals	
Nominal Frequency	f_nom	32.768kHz		
Frequency Tolerance	f tol	±20×10 <sup>-6</sup>		%Please contact us for inquiries
Trequency Tolerance	1_001			regarding available tolerance.
Turnover Temperature	Ti	+25±5℃		
Parabolic Coefficient	В	(-0.036±10%)×10⁻⁶/℃²		
Load Capacitance	CL	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	$\pm 5 \times 10^{-6}$		+25±3℃, First Year
Operating Temperature	T_use	-40~+85℃		
Storage Temperature	T_stg	-55~+125℃		Storage as single product

#### DIMENSIONS



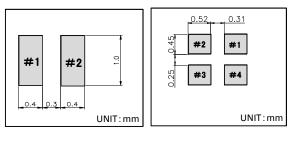
# INTERNAL LEAD CONNECTIONS



## RECOMMENDED SOLDERING PATTERN

4 terminals

2 terminals



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

# **Mouser Electronics**

Authorized Distributor

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Seiko Instruments: SC12S-9PF20PPM