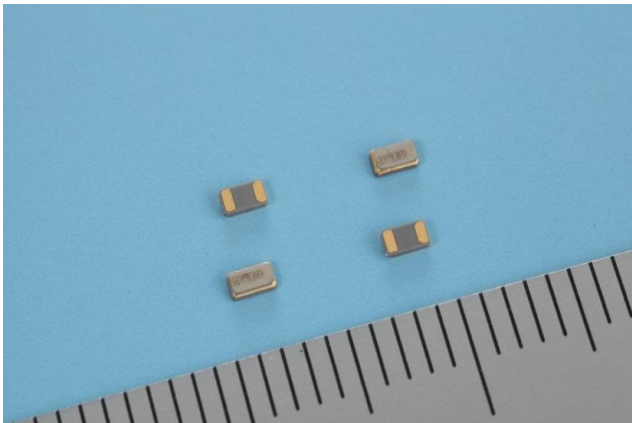


## SC-20P (R1=50kΩ max.) Low ESR Series



### FEATURES

- Suitable for Microcontroller with Low ESR (R1=50kΩ max.).
- SMD type suitable for high density surface mounting.
- Excellent shock and heat resistance.
- Pb-free.
- Complies with EU RoHS directive.
- Built-in crystal resonator processed by high reliable photo-lithographic technology.

### APPLICATIONS

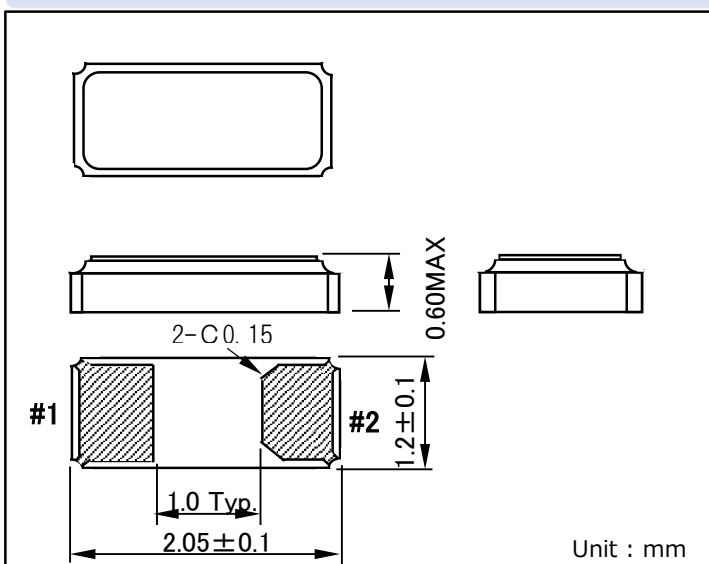
PC, Tablet, Module, Wearable, Sub-clock function for a variety of Microcontroller, etc.

### STANDARD SPECIFICATIONS

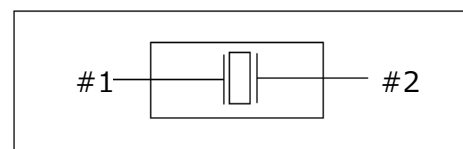
Conditions where not specified (Temperature: 25±2°C, DL:0.1μW)

Item	Symbol	Specifications	Conditions / Note
Nominal Frequency	f_nom	32.768kHz	
Frequency Tolerance	f_tol	±20×10 <sup>-6</sup>	※Please contact us about available tolerance.
Turnover Temperature	Ti	+25±5°C	
Parabolic Coefficient	β	(-0.030±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 about available CL.
Motional Resistance (ESR)	R <sub>1</sub>	50kΩ max.	-40°C to +85°C
Absolute Maximum Drive Level	DLmax.	1.0μW max.	
Level of Drive	DL	0.1μW typ.	
Shunt Capacitance	C <sub>0</sub>	1.5pF typ.	
Frequency Ageing	f_age	±3×10 <sup>-6</sup>	+25±3°C, First Year
Operating Temperature	T_use	-40°C to +85°C	
Storage Temperature	T_stg	-55°C to +125°C	Storage as single product

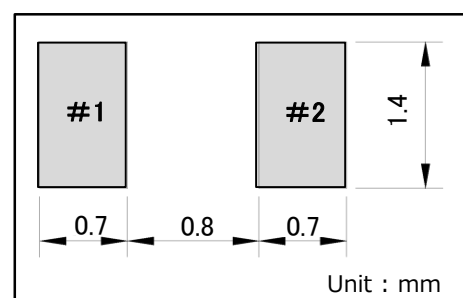
### DIMENSIONS



### INTERNAL LEAD CONNECTIONS



### RECOMMENDED SOLDERING PATTERN



Remark: Please make sure that there is no pattern under SC-20P on the circuit board.