

SC-32P

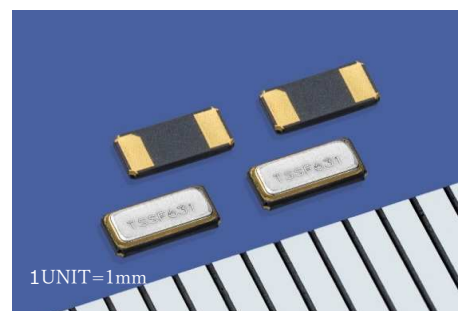
3215-Size 32 kHz Low-ESR Tuning Fork
Crystal Resonator R1 = 50 kΩ Max.

•Features

- Achieves a maximum resistance of R1 = 50kΩ over a wide temperature range (-40°C to +85°C).
- Highly reliable ceramic package
- Excellent shock and heat resistance.
- Complies with EU RoHS directive (completely Pb-free)
- Built-in highly reliable photolithographic crystal Resonator

•Applications

- Smart meters
- Smartwatches
- Electronic shelf labels
- Microcontroller (MCU) sub-clocks, etc.
- Bluetooth modules
- PCs, tablets
- GPS, GNSS modules

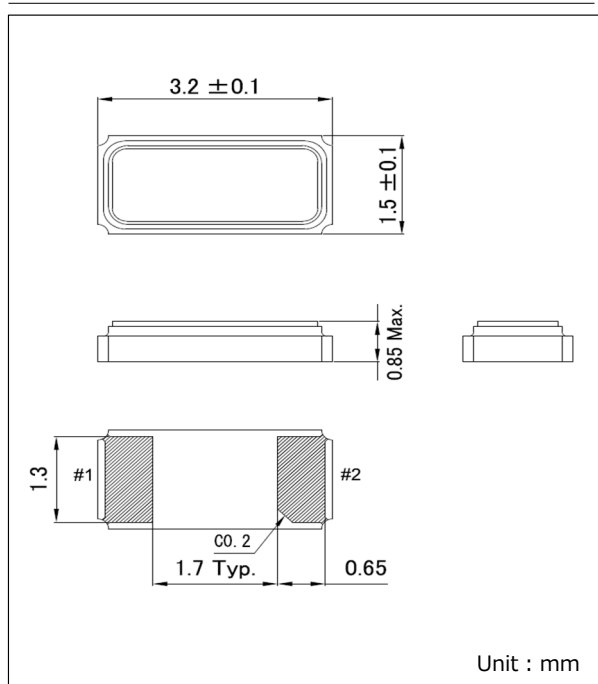


•Specifications

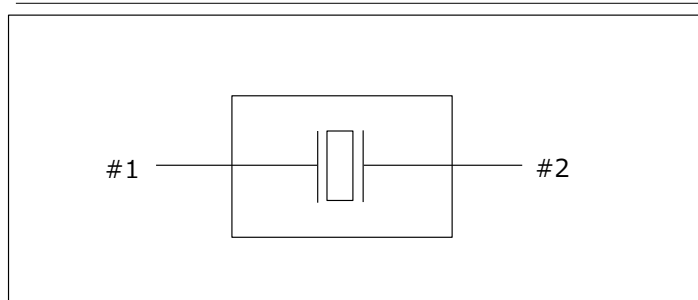
Conditions where not specified (Temperature: 25±2°C, DL;0.1μW)

Item	Symbol	Specifications	Conditions / Note
Nominal Frequency	f_nom	32.768kHz	
Frequency Tolerance	f_tol	±20×10 ⁻⁶	Other tolerance values are available upon request.
Turnover Temperature	Ti	25±5°C	
Parabolic Coefficient	β	(-0.033±10%) × 10 ⁻⁶ /°C ²	
Load Capacitance	CL	4pF, 6pF, 7pF, 9pF, 12.5pF	For other CLs, please contact us.
Motional Resistance (ESR)	R1	70kΩ Max.	
Absolute Max. Drive Level	DLmax.	1.0μW Max.	
Drive Level	DL	0.1μW Typ.	
Shunt Capacitance	C0	1.0pF Typ.	Reference value
Frequency Ageing	f_age	±3×10 ⁻⁶ /year	First year
Operating Temperature	T_use	-40~+85°C	
Storage Temperature	T_stg	-55~+125°C	Store individually

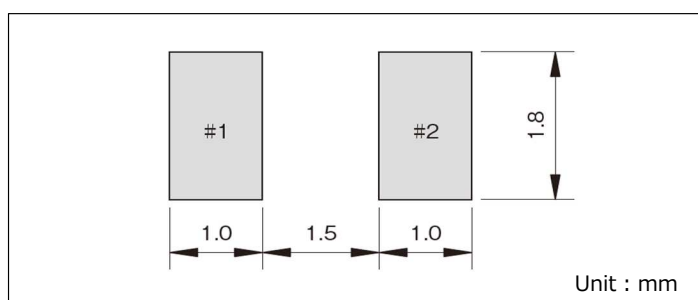
•Dimensions



•Internal Lead Connections



•Recommended Soldering Pattern



Remark: When designing the circuit board, do not place circuit patterns on the crystal resonator mounting area (bottom surface).