



kHz RANGE CRYSTAL UNIT

FC3215BN

- Frequency range : 32.768 kHz
- External dimensions : 3.2 x 1.5 x 0.9 mm
- Overtone order : Fundamental
- Applications : IoT Devices, Modules, etc.



Product Number
FC3215BN: X1A000211xxxx16



Specifications (characteristics)

Item	Symbol	Specifications	Conditions / Remarks
Nominal frequency range	f_nom	32.768 kHz	
Storage temperature range	T_stg	-55 °C to +125 °C	Storage as single product.
Operating temperature range	T_use	-40 °C to +105 °C	
Level of drive	DL	0.5 μW	
Frequency tolerance (standard)	f_tol	±20 x 10 ⁻⁶	+25 °C, DL = 0.1 μW
Turnover temperature	Ti	+25 °C ± 5 °C	
Parabolic coefficient	B	-0.04 x 10 ⁻⁶ / °C ² Max.	
Load capacitance	CL	6 pF, 7 pF, 9 pF, 12.5 pF	Contact us for other CL values
		35 kΩ Typ.	+25 °C
Motional resistance (ESR)	R1	50 kΩ Max.	-40 °C to +85 °C
		60 kΩ Max.	-40 °C to +105 °C
Motional capacitance	C1	3.4 fF Typ.	
Shunt capacitance	C0	1.0 pF Typ.	
Frequency aging	f_age	±3 x 10 ⁻⁶ / year Max.	+25 °C, First year

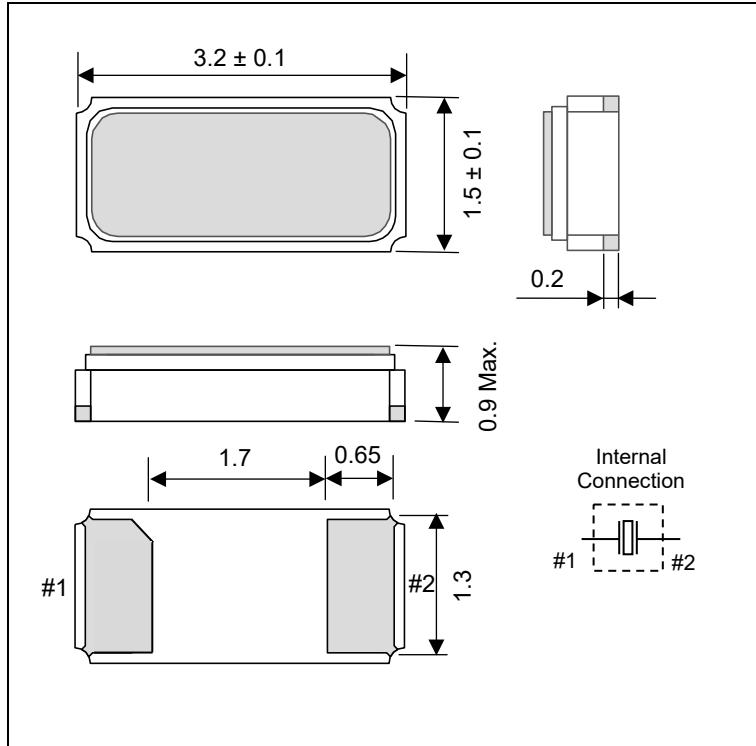
Product name

Product name FC3215BN 32.768000kHz 12.5 +20.0-20.0
(Standard form) a b c d

a. Model b. Frequency c. Load capacitance (pF) d. Frequency tolerance (x 10⁻⁶, +25 °C)

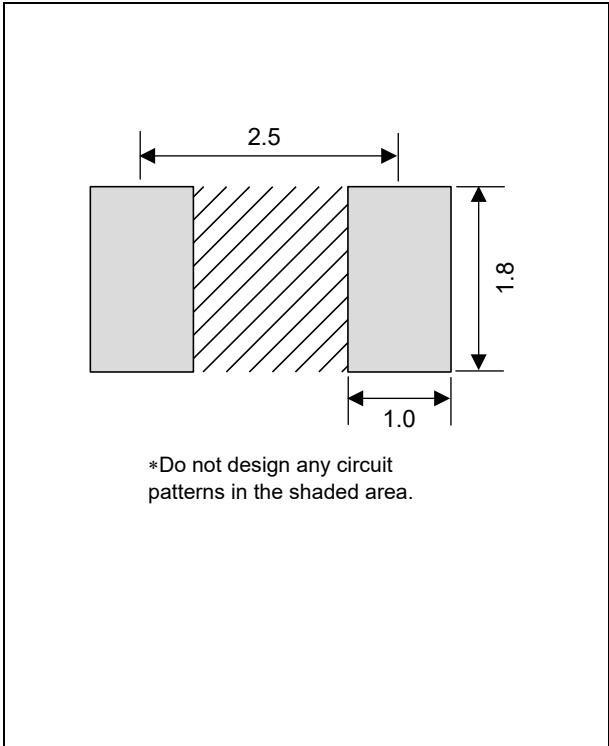
External dimensions

(Unit: mm)



Footprint (Recommended)

(Unit: mm)



► **Explanation of the mark that are using it for the catalog**

	► Pb free.
	► Complies with EU RoHS directive. *About the products without the Pb-free mark. Contains Pb in products exempted by EU RoHS directive. (Contains Pb in sealing glass, high melting temperature type solder or other.)
	► Designed for automotive general equipment.
	► Designed for automotive applications related to driving and safety.

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