kHz RANGE CRYSTAL UNIT

FC - 135R NEW
FC - 135 / FC - 255

- Frequency range : 32.768 kHz (32 kHz to 100 kHz)
- External dimensions : 3.2 × 1.5 × 0.80 mm ···FC-135R/FC-135
  : 4.9 × 1.8 × 0.80 mm ···FC-255
- Overtone order : Fundamental
- Applications : Small communications devices

RoHS Compliant

Product Number (please contact us)
FC-135R : X1A000141xxxx00
FC-135 : Q1xFC1350xxxx00
FC-255 : Q1xFC2550xxxx00

Actual size

FC-135R/FC-135	FC-255
A501J	A501J

Specifications (characteristics)

Item	Symbol	Specifications					Conditions / Remarks
		FC-135R	FC-135		FC-255		
Nominal frequency range	f_nom	32.768 kHz	32.768 kHz	32 kHz to 77.5 kHz	32.768 kHz	32 kHz to 100 kHz	Please contact us about available frequencies.
Storage temperature	T_stg	-55 °C to +125 °C					Storage as single product.
Operating temperature	T_use	-40 °C to +85 °C					
Level of drive	DL	0.5 μW (1.0 μW Max.)			0.5 μW Max.		Please contact us if you require 1.0μW Max.
Frequency tolerance (standard)	f_tol	$\pm 20 \times 10^{-6}$					+25 °C, DL=0.1 μW Please ask for tighter tolerance
Turnover temperature	Ti	+25 °C ±5 °C					
Parabolic coefficient	B	-0.04×10^{-6} / °C^2 Max.					
Load capacitance	CL	7 pF, 9 pF, 12.5 pF			7 pF, 12.5 pF		Please specify
Motional resistance (ESR)	R1	50 kΩ Max.	70 kΩ Max.	70 kΩ to 45 kΩ	65 kΩ Max.	70 kΩ to 30 kΩ	
Motional capacitance	C1	3.4 fF Typ.	3.4 fF Typ.	3.7 fF to 1.6 fF	2.0 fF Typ.	2.3 fF to 0.6 fF	
Shunt capacitance	C0	1.1 pF Typ.	1.0 pF Typ.	1.3 pF to 0.5 pF	1.3 pF Typ.	1.7 pF to 0.9 pF	
Frequency aging	f_age	$\pm 3 \times 10^{-6}$ / year Max.					+25 °C, First year

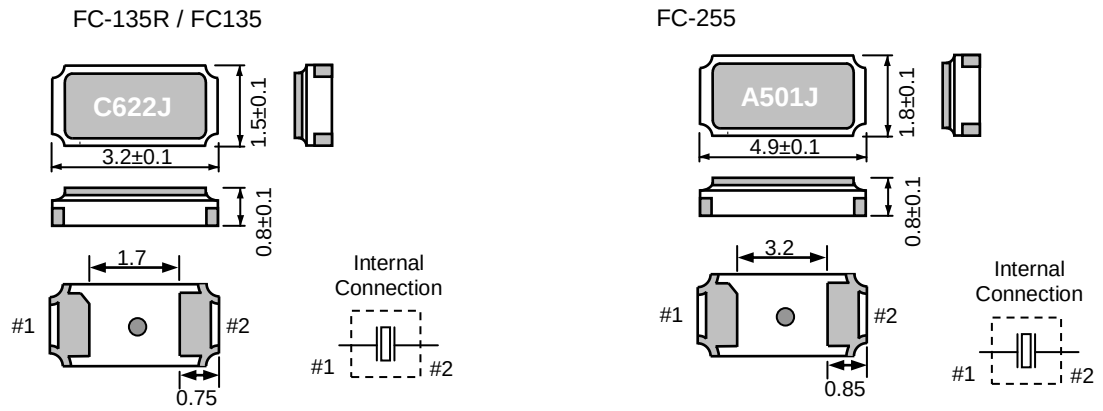
Product name (Standard form)

FC-135R	32.768000kHz	12.5	+20.0-20.0
①	②	③	④

①Model ②Frequency ③Load capacitance(pF) ④Frequency tolerance(× 10^{-6}, +25 °C)

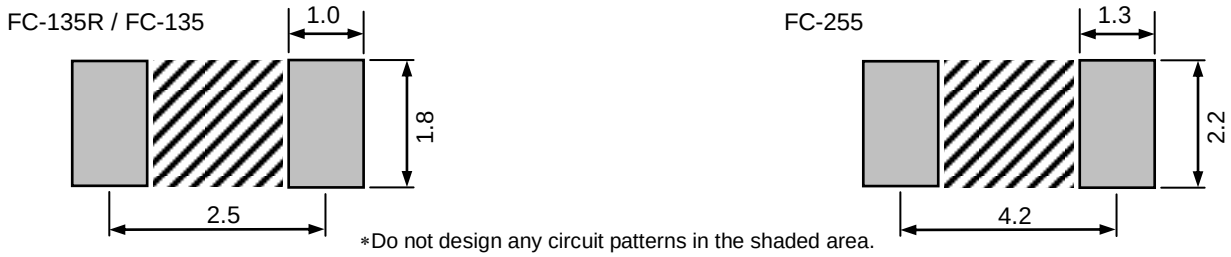
External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)



∗Do not design any circuit patterns in the shaded area.