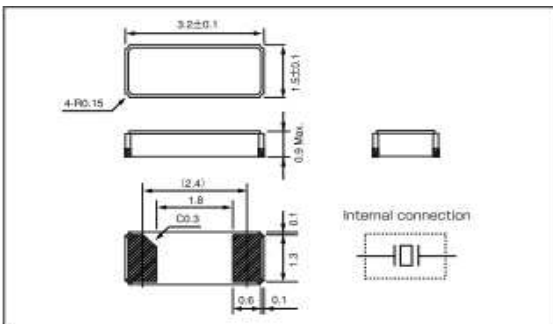


# CM315D / Low CL type



## TUNING FORK CRYSTAL UNIT

- Tuning fork crystal with ceramic packaged type.
- High-density SMD type.
- Ultra-light weight with ultra-miniature packaging.
- High-stability assured with tight vacuum sealing.
- Most appropriate for portable devices and mobile telecommunications devices.

## Standard Specification

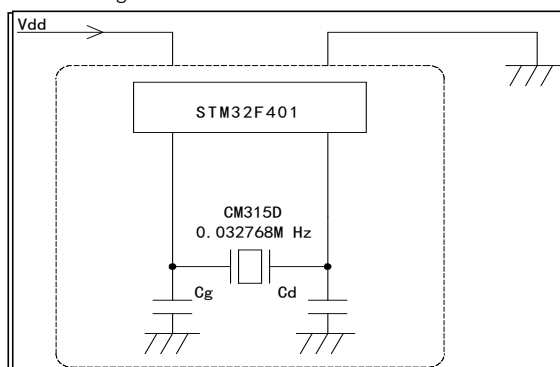
Nominal Frequency	kHz	32.768
Load Capacitance/CL	pF	4
Frequency Tolerance	ppm	+/-20
Operating Temperature Range	°C	-40 to +85
Storage Temperature Range	°C	-55 to +125
Motional Resistance	Ω	50k Max
Level of drive	uW	1 uW max.
Insulation Resistance	MΩ	500 Min. (at DC100+/-15V)

## Investigation Report of Oscillation Circuit

\*USB/at 25°C

IC		ST MICRO / STM32F401	
CRYSTAL		CM315D	
Nominal Frequency	kHz	32.768	
Load Capacitance	pF	4	
Cg,Cd	pF	3	3
Negative Resistance (-R)	ohm	520k	
Drive Level	μW	0.1	

\* Our Recommendable Negative Resistance Value : over 300k ohm



※Matching is ONLY for reference.

It is related to the current board configuration and any changes on the boards and crystal spec is under customer's responsibility.

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