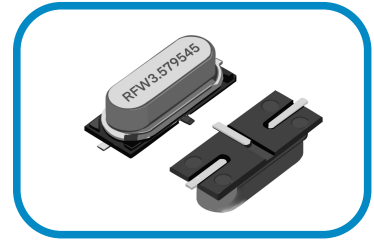


## Feature

- Metal can SMD package. (13.0×4.85×4.2mm typ.)
- 24mm width Tape & Reel package for automatic assembly.
- Application: Automotive; Bluetooth, Wireless; Computers Modems, Communications; Set-top Box, DECT/WDCT.



## Specifications

RoHS Compliant

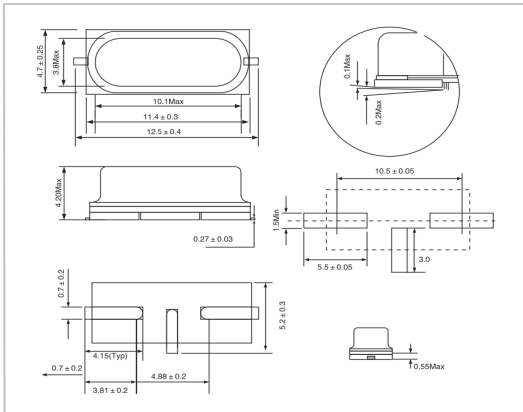


REACH Compliant

Item	Model	RFWJ Series			
Frequency Range		3.5 to 80MHz			
Oscillator Mode		Fundamental, 3rd Overtone			
Frequency Tolerance (25±3°C)		±5PPM~±50PPM			
Temperature Characteristics (with reference to +25°C)		±10PPM~±50PPM			
Operating Temperature Range		-20 to 70°C (standard), see below*order information*			
Load Capacitance		6pF~32pF, Series			
Storage Temperature Range		-55 ~ +125°C			
Drive Level		10µW(max. 100µW)			
Equivalent Series Resistance	Frequency Range (MHz)	Equivalent Series Resistance max. [Ω]	Frequency Range (MHz)	Equivalent Series Resistance max. [Ω]	
	3.5 to 4	140	16 to 20	30	
	4 to 5	120	20 to 30	25	
	5 to 7	80	30 to 36	(A1) 25	
	7 to 9	45	30 to 36	(A3) 80	
	9 to 13	40	36 to 80	(A3) 60	
	13 to 16	35			

The above specifications are standard for this RFW products. Custom-made Spec. such as CL and Temp. Stability are also available. Please contact us with your enquiries.

## Outline Drawing J3



## Ordering Information

### Part Number Guide

<b>RFW</b> X'TAL	<b>J3</b> Package Size (mm)	<b>20</b> Load Capacitance	<b>E</b> Freq. Tol. @25°C (ppm)	<b>E</b> Frequency Stability (ppm)	<b>C</b> Temp. Range (°C)	<b>1</b> Oscillator Mode	- Dash	<b>Freq.</b> (Mhz)
	J :4.0mm J4:4PD J3:3PIN P :3.0mm	XX=xxpF	A:±5 B:±10 P:±15 C:±20 D:±25 E:±30 G:±50	B:±10 P:±15 C:±20 D:±25 E:±30 G:±50	A: 0~+50°C I:-10~+60°C F:-10~+70°C C:-20~+70°C R:-20~+75°C S:-20~+85°C M:-25~+70°C N:-30~+70°C T:-30~+85°C L:-40~+85°C	1:AT Fundamental 3:3rd Overtone		XX.XXXXXX

## Frequency Stability Vs. Temperature Range

Temp.(°C)	Ppm	±5	±10	±15	±20	±30	±50
-10 ~ +60		△	○	○	○	○	○
-20 ~ +70		X	△	○	○	○	○
-40 ~ +85		X	X	X	△	○	○

○: Available △: Conditional X: Not available

Example RFWJ20EEC1-12.000000MHz  
Crystal unit, RoHS Compliant, 13.0\*4.85mm; CL=20pF; Freq. Tolerance: +/-30ppm;  
Freq. Stability: +/-30ppm; Operating Temp. Range: -20~70°C; No Special; AT  
Fundamental; Normal; RoHS Compliant; Freq. 12.000000MHz.  
\*\*Not all combinations of options are available.