

Crystal Unit

Product	TFX-03
Model number	32.768KHZ-J13375
Nominal frequency	32.768 kHz
Overtone order [Cut]	Fundamental [X-cut]
Load capacitance	7 pF
Equivalent series resistance	80 kΩ Max.
Frequency tolerance	±20 ppm (@25°C)

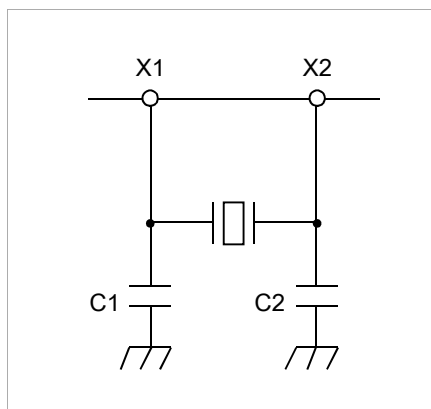
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Manufacturer	Renesas Electronics
Series	RL78/G14
Model	R5F104xxx

Recommended Condition for Stable Oscillation

Negative resistance	240 kΩ Min.
Drive level	0.5 μW Max.

Circuit Diagram



Evaluation Result

Oscillation mode of RL78/G14	C1 [pF]	C2 [pF]	VDD [V]	Negative resistance [kΩ]	Drive level [μW]	Frequency deviation [ppm]
Normal oscillation	12	12	+1.6	570	0.1 Max.	-5.2
			+2.75	570	0.1 Max.	-3.4
			+5.5	570	0.1 Max.	-0.4
			+6.0	570	0.1 Max.	-0.1

* Ambient temperature: 25°C

RIVER

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