

Crystal Unit

Product	TFX-02S
Model number	32.768KHZ-J31936
Nominal frequency	32.768 kHz
Overtone order [Cut]	Fundamental [X-cut]
Load capacitance	9 pF
Equivalent series resistance	70 kΩ Max.
Frequency tolerance	±20 ppm (@25°C)

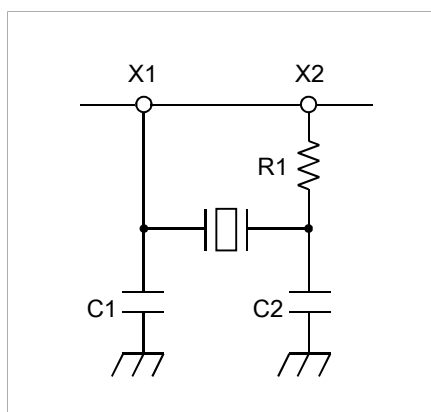
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Manufacturer	Renesas Electronics
Series	RL78/G1C
Model	R5F10Jxxx

Recommended Condition for Stable Oscillation

Negative resistance	210 kΩ Min.
Drive level	0.5 μW Max.

Circuit Diagram



Evaluation Result

Oscillation mode of RL78/G1C	R1 [Ω]	C1 [pF]	C2 [pF]	VDD [V]	Negative resistance [kΩ]	Drive level [μW]	Frequency deviation [ppm]
Normal oscillation	0	18	15	+2.4	390	0.1 Max.	-3.9
				+3.95	390	0.1 Max.	-3.3
				+5.5	390	0.1 Max.	-3.0

* Ambient temperature: 25°C

RIVER

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