RSX-11

rakon

SMD Communication Crystal

Low profile SMD AT-cut quartz crystal in a ceramic package with a 2.0 mm x 1.6 mm foot print.

Product description

Miniature low profile AT-cut quartz crystal. True SMD style, ceramic package with nickel plated lid, seam welded. The product is supplied on tape and reel.

Applications

- Automotive
- GPS
- Communications
- Feature phone
- Consumer

Features

- Low aging
- Low hysteresis
- Wide temperature range

Specifications

1.0 SPECIFICATION REFERENCE

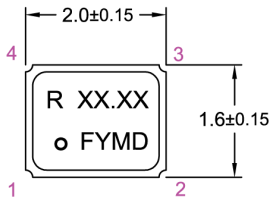| Line	Parameter	Description
1.1	Model description	RSX-11
1.2	RoHS compliant	Yes
1.3	Reference number	
1.4	Rakon part number	

2.0 FREQUENCY CHARACTERISTICS

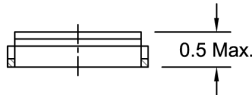| Line	Parameter	Test Condition	Value	Unit
2.1	Frequency		19.2 to 52	MHz
2.2	Calibration tolerance	Frequency at 25°C ±2°C and specified load capacitance	±10 to 50	ppm
2.3	Reflow shift	Two consecutive reflows as per attached profile after 4 hours recovery at 25°C	±1 max	ppm
2.4	Frequency stability over temperature	Referenced to frequency reading at 25°C and the specified load capacitance	±15 to 50	ppm
2.5	Temperature range	Operating temperature	-40 to 85	°C
2.6	Frequency perturbations	Peak-to-peak deviation from the frequency versus temperature curve fit 5th order. Minimum of 1 frequency reading every 3°C over operating temperature range	1 max	ppm
2.7	Long term stability	Frequency drift over 1 year at 25°C	±1 max	ppm
2.8	g sensitivity	Gamma vector of all three axes from 30 Hz to 1500 Hz at 10 RMS	2 max	ppb/g

3.0 ELECTRICAL

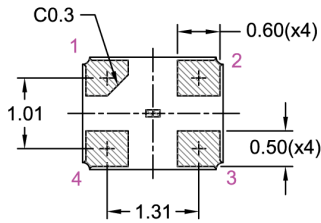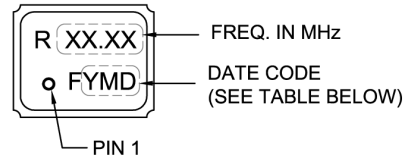| Line	Parameter	Test Condition	Value	Unit
3.1	Load capacitance (CL)	Frequency is calibrated at room temperature	5 to 32	pF
3.2	Shunt capacitance (C0)	Operating specification	0.5 to 3	pF
3.3	Pull ability	Load and frequency dependant	0.5 min	ppm/pF
3.4	Drive level	Operating specification	30 max	µW
3.5	Equivalent series resistance (ESR)		85 max	Ω
3.6	Insulation resistance	100V ±15V at 25°C	500 min	MΩ

Drawing Name: RSX-11 Model Drawing

MODEL OUTLINE

2.0±0.15

R XX.XX
o FYMD

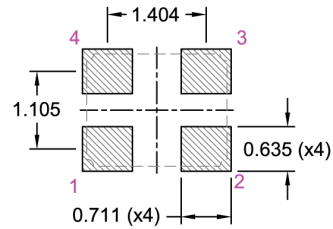1.6±0.15

TOP VIEW

0.5 Max.

FRONT VIEW

C0.3
0.60(x4)
1.01
0.50(x4)
1.31

BOTTOM VIEW

MARKING EXAMPLE

R XX.XX
o FYMD

FREQ. IN MHz

DATE CODE
(SEE TABLE BELOW)

PIN 1

PIN CONNECTIONS

	CONNECTIONS
1	CRYSTAL
2	GND
3	CRYSTAL
4	GND

RECOMMENDED PAD LAYOUT - TOP VIEW

1.404

1.105

0.635 (x4)

0.711 (x4)

Y - Year Code

Code	Year	Code	Year
A	2010	N	2023
B	2011	O	2024
C	2012	P	2025
D	2013	Q	2026
E	2014	R	2027
F	2015	S	2028
G	2016	T	2029
H	2017	U	2030
I	2018	V	2031
J	2019	W	2032
K	2020	X	2033
L	2021	Y	2034
M	2022	Z	2035

M - Month Code

Code	Month
1	Jan
2	Feb
3	Mar
4	Apr
5	May
6	Jun
7	Jul
8	Aug
9	Sep
A	Oct
B	Nov
C	Dec

D - Day Code

Code	Day	Code	Day	Code	Day
1	1	E	14	R	27
2	2	F	15	S	28
3	3	G	16	T	29
4	4	H	17	U	30
5	5	I	18	V	31
6	6	J	19		
7	7	K	20		
8	8	L	21		
9	9	M	22		
A	10	N	23		
B	11	O	24		
C	12	P	25		
D	13	Q	26		

TITLE: RSX-11 MODEL	FILENAME: CAT482	TOLERANCES:
RELATED DRAWINGS:	REVISION: E	XX =
	DATE: 17-Oct-12	X.X = ±0.2
	SCALE: 10 : 1	X.XX = ±0.10
	Millimetres	X.XXX = ±0.05
		X° =
		Hole =

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