

SMD Communication Crystals

Low profile SMD AT-cut quartz crystal in a ceramic package with a 5.0 x 3.2 mm footprint.

Product description

Miniature low profile AT-cut quartz crystal. Resin sealed ceramic package assures extreme accuracy and high reliability. The product is supplied on tape and reel.

**Applications**

- Communications
- GPS
- Consumer
- General purpose

Features

- Low height profile
- Compact design
- Wide frequency range

Specifications**1.0 SPECIFICATION REFERENCES**

Line	Parameter	Description
1.1	Model Description	RSX5032C
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		8 to 60	MHz
2.2	Calibration tolerance	Frequency at 25°C ±2°C	±15 to 100	ppm
2.3	Frequency stability over temperature	Referenced to frequency reading at 25°C and the specified Load Capacitance	±10 to 100	ppm
2.4	Temperature range	Operating temperature available	-40 to 85	°C
2.5	Long term stability	Frequency drift over 1 year at 25°C	±5 max	ppm

3.0 ELECTRICAL

Line	Parameter	Test Condition	Value	Unit
3.1	Load capacitance (CL)	Frequency is calibrated to a load at room temperature	8 to 10	pF
3.2	Drive level	Operating specification 50 ± 2µW	500 max	µW
3.3	Equivalent series resistance (ESR).		50 to 500	Ω
3.4	Insulation Resistance (IR)	DC100V ± 15V	500 min	MΩ

4.0 ENVIRONMENTAL

Line	Parameter	Description
4.1	Shock	Half sine-wave acceleration of 1000g peak amplitude: 1ms
4.2	Vibration	Frequency swept from 10 Hz to 55 Hz back to 10 Hz in 1 minute. Amplitude of 1.5mm displacement. A duration of 2 hours in each of the 3 perpendicular axes
4.3	Moisture resistance	1000 hours at 40°C, 90 - 95% relative humidity
4.4	Temperature cycling	100 temperature cycles, where each cycle consists of a 25 minutes shock time at -40°C follow by a 30 minutes soak time at 85°C, with a 60 seconds maximum transition time between temperatures
4.5	Storage temperature	-40 to 85°C

5.0 MANUFACTURING INFORMATION

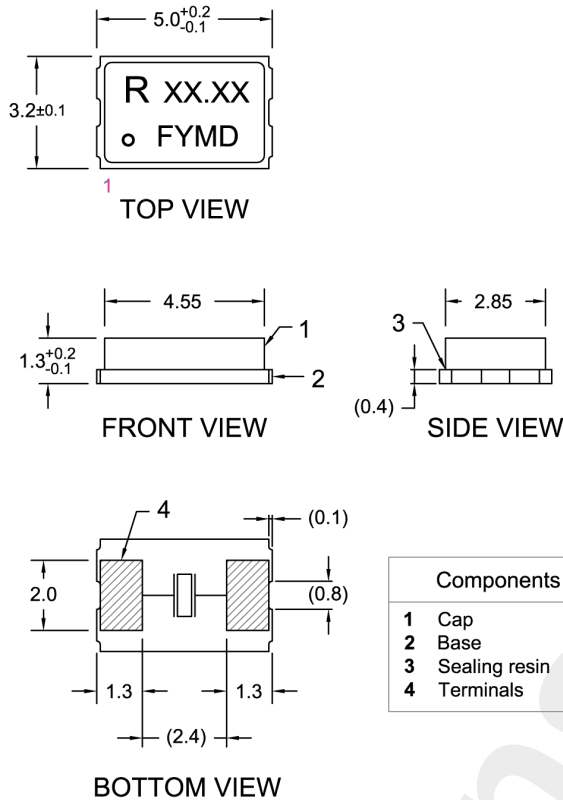
Line	Parameter	Description
5.1	Washing	Able to withstand aqueous washing process
5.2	Reflow	Solder reflow process as per attached profile
5.3	Packaging description	Tape and Reel. Standard packing quantity is 3000 units per reel

6.0 MARKING

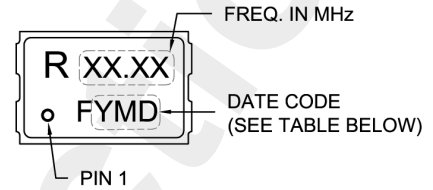
Line	Parameter	Description
6.1	Type	Laser engraved
6.2	Line 1	Rakon Logo and frequency in MHz [XX.XX]
6.3	Line 2	Pin 1 mark and Date code

Drawing Name: RSX5032C Model Drawing

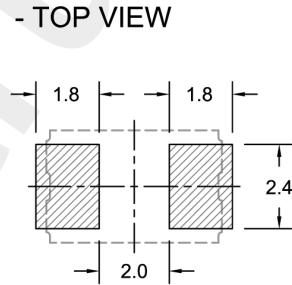
MODEL OUTLINE



MARKING EXAMPLE



RECOMMENDED PAD LAYOUT



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: RSX5032C MODEL

RELATED DRAWINGS:

FILENAME: CAT607

REVISION: A

DATE: 21-Jul-11

SCALE: 5 : 1

Millimetres

TOLERANCES:

XX =

X.X = ±0.15

X.XX = ±0.10

X.XXX =

X° =

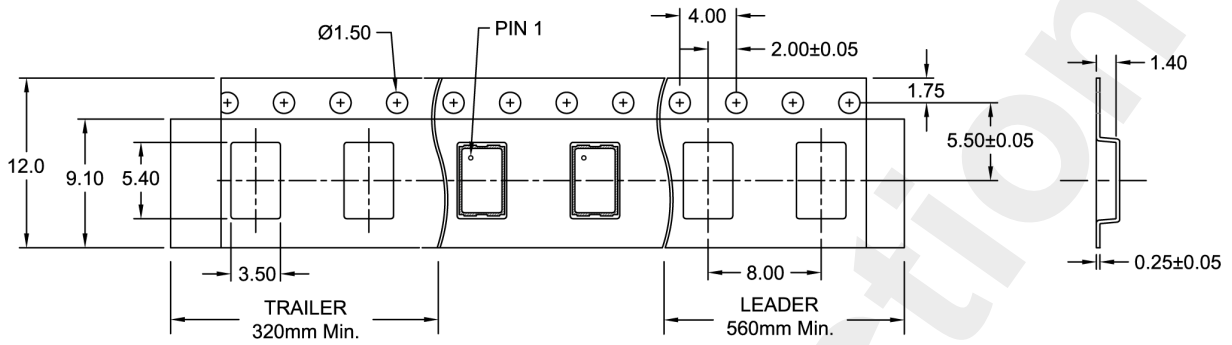
Hole =

rakon

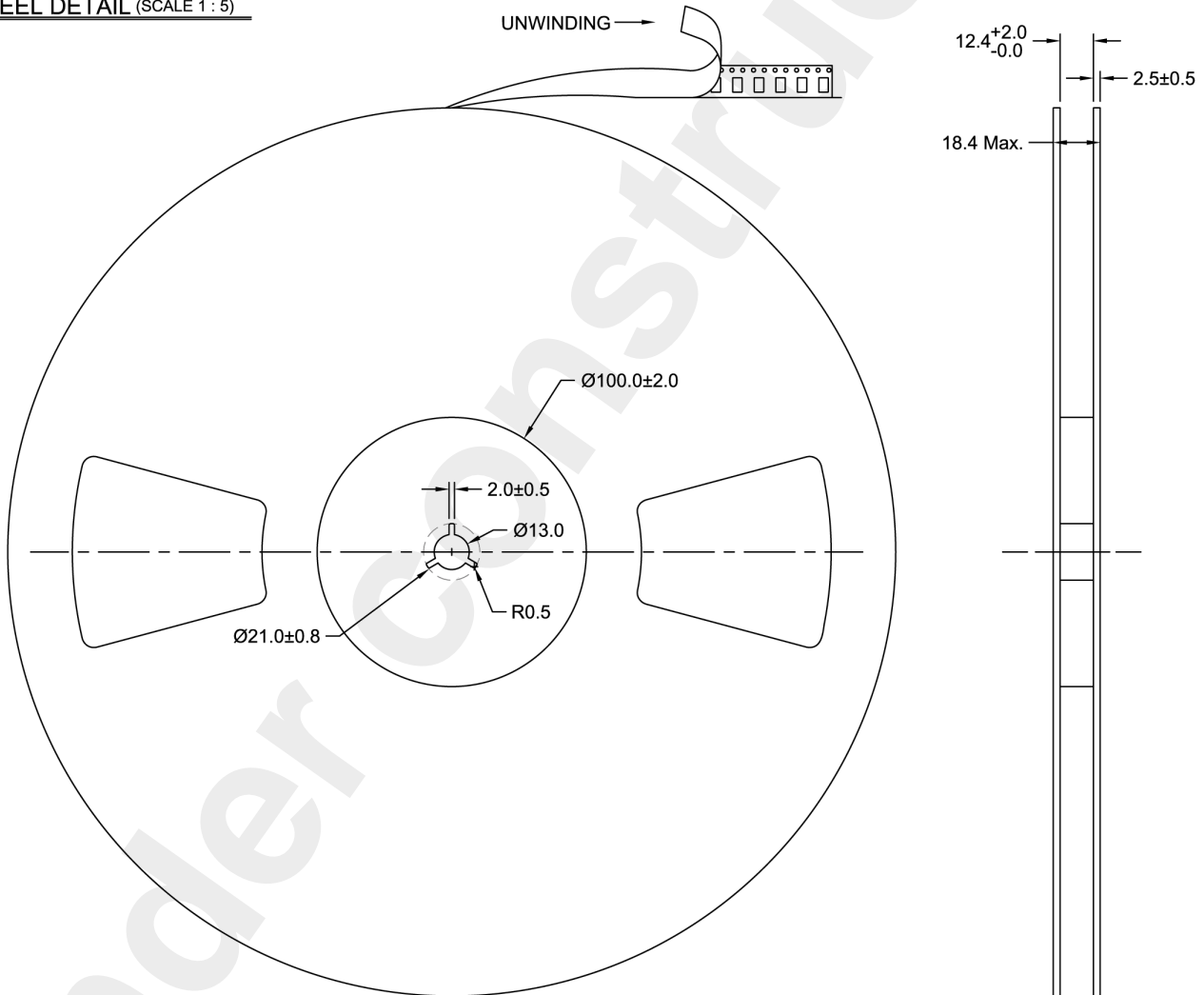
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Drawing Name: RSX5032C Series Tape & Reel

TAPE DETAIL (SCALE 2 : 1)



REEL DETAIL (SCALE 1 : 5)



TITLE: RSX5032C SERIES TAPE & REEL

FILENAME: CAT633

TOLERANCES:

RELATED DRAWINGS:

REVISION: A

DATE: 23-Sep-11

SCALE: 2 : 1

Millimetres

XX =
 X.X = ± 0.2
 X.XX = ± 0.10
 X.XXX =
 X° =
 Hole =

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