actual size

SMD Quartz Crystal · JXS22

- 4 Pad Version, 2.5 x 2.0 mm
- seam sealed ceramic/metal package
- extended temperature ranges available
- high mechanical reliability type available
- for automotive type, see automotive datasheet

RoHS compliant · Pb free · REACH compliant · Conflict mineral free

GENERAL DATA

TYPE	JXS22
frequency range	12.0 ~ 66.0 MHz (fund. AT-cut)
frequency tolerance at 25 °C	± 10 ppm / ± 30 ppm
load capacitance C_L	8/10/12 pF standard
	(option: 6 pF ~ 30 pF / series)
shunt capacitance C_0	< 3 pF
storage temperature	-40 °C ~ +90 °C
drive level max.	100 µW (10 µW recommended)
aging	< ± 3 ppm first year
	(option: < ± 1 ppm first year for tol. ± 10 ppm)

ESR (SERIES RESISTANCE RS)

frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
12.0 ~ 12.999	fund. - AT	150	120
13.0 ~ 15.999	fund. - AT	150	100
16.0 ~ 17.999	fund. - AT	80	50
18.0 ~ 19.999	fund. - AT	80	40
20.0 ~ 24.999	fund. - AT	60	35
25.0 ~ 29.999	fund. - AT	60	30
30.0 ~ 34.999	fund. - AT	50	25
35.0 ~ 66.000	fund. - AT	40	20

TABLE 1: FREQUENCY STABILITY VS. TEMPERATURE

		± 10 ppm	±15 ppm	±20 ppm	±30 ppm	±50 ppm	±100 ppm
-20 °C ~ +70 °C	STD.	●	○	○	●	○	○
-40 °C ~ +85 °C	T1		○	○	○	○	○
-40 °C ~ +105 °C	T2			○	○	○	○
-40 °C ~ +125 °C	T3					○	○

● standard ○ available

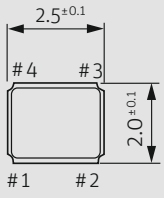
MARKING

frequency with load capacitance code
company code / date code / internal code

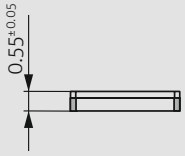
date code: year/month; A ~ M: Jan. - Dec.; example: 4A = 2024 January
4: 2024 5: 2025 6: 2026 7: 2027 8: 2028 9: 2029

Jan.	Febr.	Mar.	Apr.	May	June
A	B	C	D	E	F
July	**Aug.**	**Sept.**	**Oct.**	**Nov.**	**Dec.**
G	H	J	K	L	M

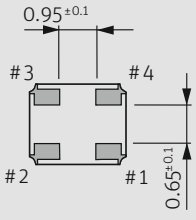
DIMENSIONS



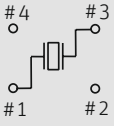
top view



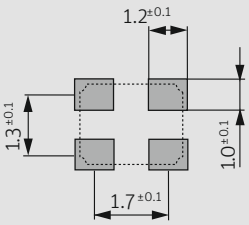
side view



bottom view



#2–#4: connected to lid, preferably connect to GND crystal connection



pad layout

in mm

ORDER INFORMATION

Q	frequency	–	type	–	load capacitance	–	tolerance at 25 °C	–	stability vs. temp. range	–	option
Quartz	12.0 ~ 66.0 MHz		JXS22		8/10/12 pF standard 6 pF ~ 30 pF available S for series		10 = ± 10 ppm 30 = ± 30 ppm		10 = ± 10 ppm 15 = ± 15 ppm 20 = ± 20 ppm 30 = ± 30 ppm 50 = ± 50 ppm 100 = ± 100 ppm		blank = -20 °C ~ + 70 °C T1 = -40 °C ~ + 85 °C T2 = -40 °C ~ +105 °C T3 = -40 °C ~ +125 °C FU = for fundamental frequencies ≥ 20 MHz HMR = high mechanical reliability (3000g/half sine wave/0.3ms)

Example: Q 32.0-JXS22-8-10/20-T1-FU-LF (Suffix LF = RoHS compliant / Pb free)

Jauch Quartz GmbH • e-mail: info@jauch.com • full data can be found under: www.jauch.com

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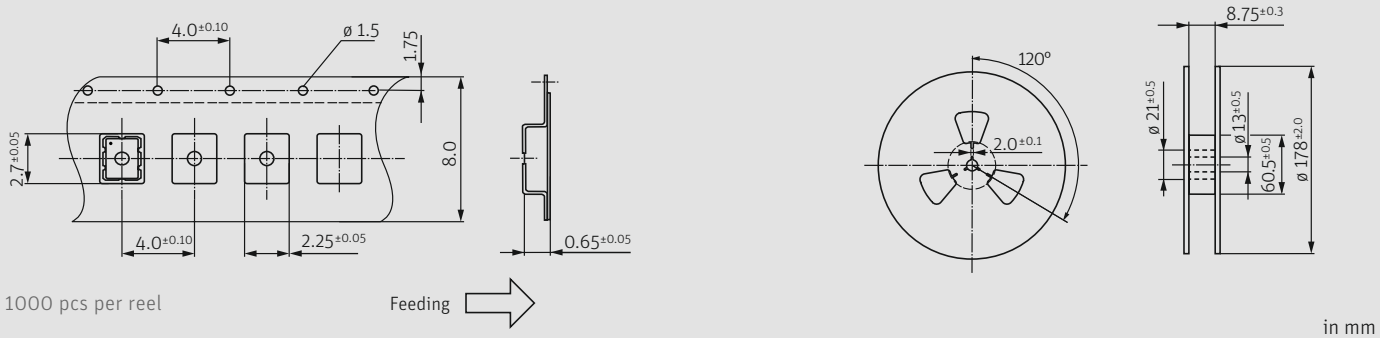
TAPING SPECIFICATION

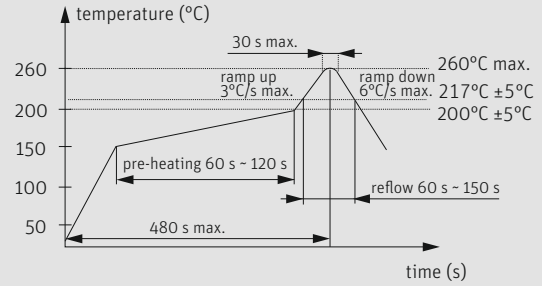


1000 pcs per reel

Feeding

in mm

REFLOW SOLDERING PROFILE



note: parts are also suitable for soldering systems with lead (Pb) content

LOAD CAPACITANCE CODES

6 pF: q	12 pF: a	18 pF: f	27 pF: w
7 pF: m	13 pF: v	20 pF: c	30 pF: .
8 pF: k	14 pF: x	22 pF: g	series: s
9 pF: n	15 pF: j	24 pF: d	T: 3rd OT
10 pF: h	16 pF: b	25 pF: r	
11 pF: l	17 pF: t		

example 20.0 MHz / 8 pF: 20k00