



actual size

# SMD Quartz Crystal · JXS21

- 4 Pad Version, 2.0 x 1.6 mm
- ± 10 ppm type available
- EMI shielding possible by grounded lid
- reflow soldering temperature: 260 °C max.
- ceramic / metal package



RoHS compliant



Pb free



REACH compliant



Conflict mineral free

GENERAL DATA	
TYPE	JXS21
frequency range	16.0 ~ 54.0 MHz (fund. AT-cut)
frequency tolerance at 25 °C	± 10 ppm / ± 20 ppm / ± 30 ppm
load capacitance $C_L$	8/10/12 pF standard (option: 6 pF ~ 30 pF / series)
shunt capacitance $C_0$	< 5 pF
storage temperature	-40 °C ~ +105 °C
drive level max.	100 µW (10 µW recommended)
aging	< ± 3 ppm first year (< ± 1 ppm first year for tol. ± 10 ppm on request)

ESR (SERIES RESISTANCE RS)			
frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
16.0 ~ 19.999	fund. - AT	150	120
20.0 ~ 29.999	fund. - AT	100	70
30.0 ~ 35.999	fund. - AT	80	50
36.0 ~ 54.000	fund. - AT	60	40

TABLE 1: FREQUENCY STABILITY VS. TEMPERATURE						
		± 10 ppm	± 15 ppm	± 20 ppm	± 30 ppm	± 50 ppm
-20 °C ~ +70 °C	STD.	○	○	○	○	○
-40 °C ~ +85 °C	T1		○	○	○	○
-40 °C ~ +105 °C	T2				○	○

MARKING						
frequency with load capacitance code						
company code / date code / internal code						
date code: year/month; A ~ M: Jan. - Dec.; example: 8A = 2018 January						
7: 2017	8: 2018	9: 2019	0: 2020	1: 2021	2: 2022	
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: 2.0±0.1 mm width, 1.6±0.1 mm height, pads #1, #2, #3, #4.

side view: 0.55 mm max. height.

bottom view: 0.64±0.05 mm pad width, 0.47±0.05 mm pad offset, 0.60±0.05 mm pad spacing, 0.50±0.05 mm pad width.

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

pad layout: 0.9±0.1 mm pad width, 1.1±0.1 mm pad spacing, 1.4±0.1 mm pad width, 0.8±0.1 mm pad spacing.

in mm

ORDER INFORMATION							
Q	frequency	type	load capacitance	tolerance at 25 °C	stability vs. temp. range	option	
Quartz	16.0 ~ 54.0 MHz	JXS21	8/10/12 pF standard 6 pF ~ 30 pF available S for series	10 = ± 10 ppm 20 = ± 20 ppm 30 = ± 30 ppm	10 = ± 10 ppm 15 = ± 15 ppm 20 = ± 20 ppm 30 = ± 30 ppm 50 = ± 50 ppm	blank = -20 °C ~ +70 °C T1 = -40 °C ~ +85 °C T2 = -40 °C ~ +105 °C FU = for fundamental frequencies ≥ 20 MHz	

**Example: Q 26.0-JXS21-12-10/20-T1-FU-LF** (Suffix LF = RoHS compliant / Pb free)



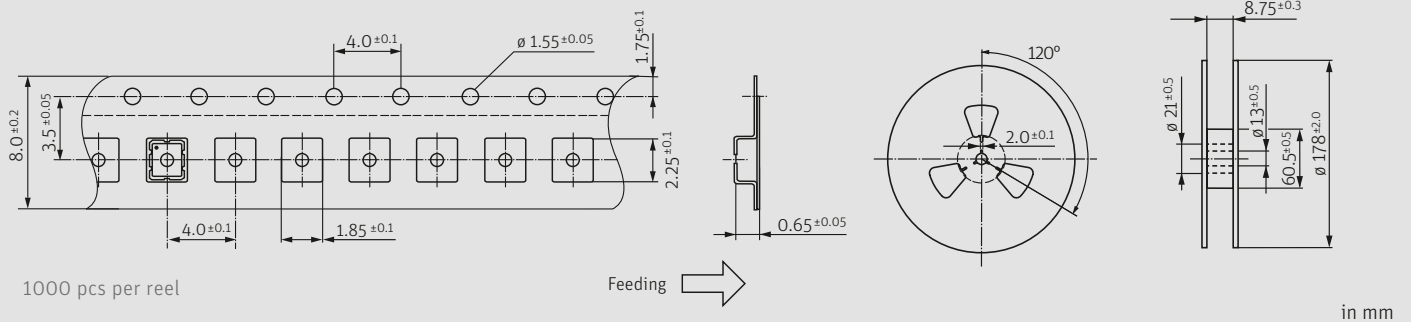
B.C.E. S.r.l. - Via Regina Pacis, 54/c - Sassuolo (MO) - I 41049 - Italy  
 Tel.: 0536 811616 - Fax: 0536 811500 - Web: www.bce.it - E-mail: bce@bce.it

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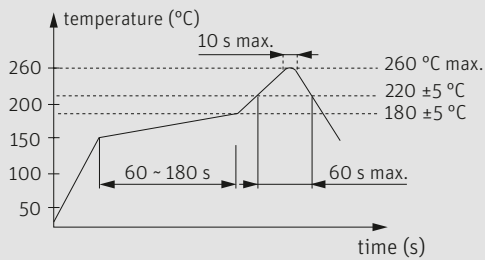
Jauch Quartz GmbH • e-mail: info@jauch.com • full data can be found under: www.jauch.com  
 All specifications are subject to change without notice

# SMD Quartz Crystal · JXS21

## TAPING SPECIFICATION



## REFLOW SOLDERING PROFILE



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

## LOAD CAPACITANCE CODES

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	27 pF: w	
12 pF: a	18 pF: f	30 pF: .	
13 pF: v	20 pF: c		

example 20.0 MHz / 12 pF: 20a00

\* hand soldering temperature should not exceed 280 °C