



actual size

# SMD Quartz Crystal · JXS32-WA

- for wireless applications, 3.2 x 2.5 mm
- perfect reference crystal for wireless applications
- for IoT using BlueTooth, ZigBee, NFC and more
- high frequency stability and low ESR
- metal lid allows EMI shielding



RoHS compliant



Pb free



REACH compliant



Conflict mineral free

## GENERAL DATA

TYPE	JXS32-WA
special frequencies for wireless applications	14 standard frequencies shown in ESR list (for other frequencies refer to general JXS22 datasheet)
frequency tolerance at 25 °C	±10 ppm*
load capacitance $C_L$	8 pF / 9 pF / 10 pF / 12 pF*
shunt capacitance $C_0$	< 3 pF
storage temperature	-40 °C ~ +105 °C
drive level max.	100 µW (10 µW recommended)
aging	< ± 1 ppm first year

\* for different specs please ask for availability

## TABLE 1: FREQUENCY STABILITY CODE

		±10 ppm	±13 ppm	±15 ppm	±20 ppm	±25 ppm	±30 ppm
-20 °C ~ +70 °C	STD.	●		○	○	○	○
-30 °C ~ +85 °C	T(-30/+85)	△	○	○	○	○	○
-40 °C ~ +85 °C	T1		△	●	○	○	○
-40 °C ~ +105 °C	T2				△	△	●

● standard ○ available △ ask if available

## ESR (SERIES RESISTANCE RS)

frequency in MHz	vibration mode	ESR max. in Ω	ESR typ. in Ω
13.560	fund. - AT	80	40
16.0	fund. - AT	50	25
19.20	fund. - AT	50	25
20.0	fund. - AT	45	20
24.0	fund. - AT	40	20
25.0	fund. - AT	40	15
26.0	fund. - AT	40	15
27.120	fund. - AT	40	15
30.0	fund. - AT	40	15
32.0	fund. - AT	40	15
37.40	fund. - AT	35	15
38.40	fund. - AT	35	15
40.0	fund. - AT	35	15
48.0	fund. - AT	35	15
52.0	fund. - AT	35	15

## DIMENSIONS

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

in mm

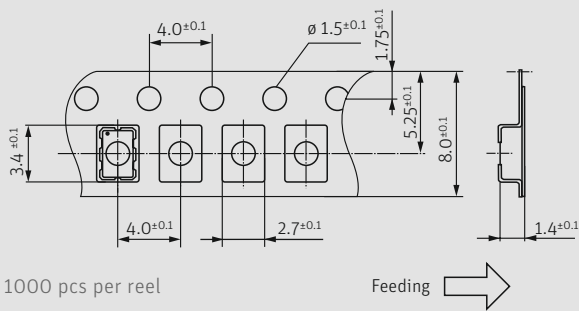
## ORDER INFORMATION

Q	frequency	type	load capacitance	tolerance at 25 °C	stability vs. temp. range	option 1	option 2
Quartz	see frequencies in ESR list	JXS32	8 / 9 / 10 / 12 pF	10 = ±10 ppm std.	10 = ±10 ppm 13 = ±13 ppm 15 = ±15 ppm 20 = ±20 ppm 25 = ±25 ppm 30 = ±30 ppm	blank = -20 °C ~ +70 °C T(-30/+85) = -30 °C ~ +85 °C T1 = -40 °C ~ +85 °C T2 = -40 °C ~ +105 °C FU = for fundamental frequencies ≥ 20 MHz	WA = for wireless application

**Example: Q 26.0-JXS32-12-10/15-T1-FU-WA-LF** (Suffix LF = RoHS compliant / Pb free pins or pads)

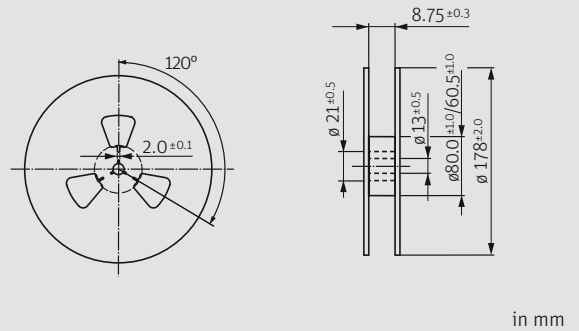
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## TAPING SPECIFICATION

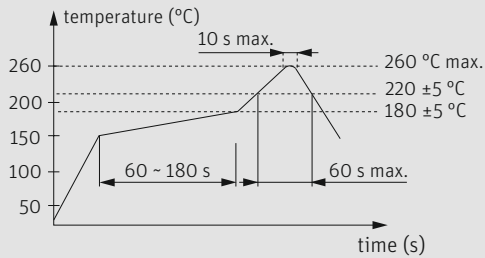


1000 pcs per reel

Feeding →



## 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

## MARKING

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

date code: A ~ M: Jan. - Dec.

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