



actual size

# Quartz Crystal · JTX210

SMD Tuning Fork Crystal · 2.0 x 1.2 mm

- 32.768 kHz
- reflow soldering temperature: 260 °C max.
- package height 0.6 mm max.



## General Data

type	JTX210
frequency	32.768 kHz
frequency tolerance at 25 °C ± 5 °C	± 20 ppm / ± 30 ppm
load capacitance $C_L$	12.5 pF std. / 9.0 pF / 7.0 pF
temperature constant ( $T_C$ )	$T_C = -0.04 \cdot 10^{-6} / ^\circ\text{C}^2$ max. $T_C = -0.034 \cdot 10^{-6} / ^\circ\text{C}^2$ typical
frequency temperature characteristic	$f$ (ppm) = $T_C \cdot (25^\circ\text{C} - T)^2$ $T$ = requested temperature
operating temperature range	-20 °C ~ +70 °C / -40 °C ~ +85 °C
shunt capacitance $C_0$	1.3 pF typical
series resistance max. (ESR)	90 k $\Omega$
storage temperature	-55 °C ~ +125 °C
drive level max.	0.5 $\mu$ W
aging first year	< ± 3 ppm

## Frequency Stability vs. Temperature

		- 80 ppm	- 160 ppm
-20 °C ~ +70 °C	STD.	●	
-40 °C ~ +85 °C	T1		●
● standard			

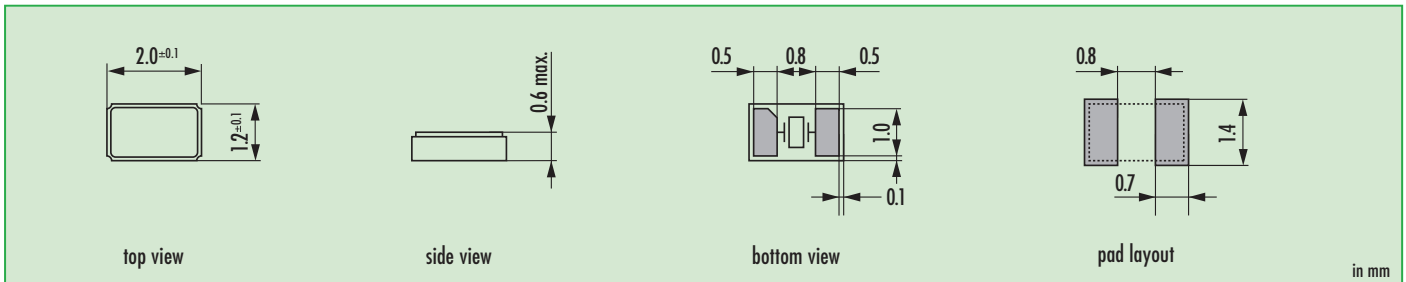
## Marking

T / CL code / date code / internal code

CL code: A = 12.5 pF, B = 9 pF, C = 7 pF

	Jan.	Febr.	Mar.	Apr.	May	June	July	Aug.	Sept.	Okt.	Nov.	Dec.
2012	n	p	q	r	s	t	u	v	w	x	y	z
2013	A	B	C	D	E	F	G	H	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015	a	b	c	d	e	f	g	h	i	j	k	l

## Dimensions



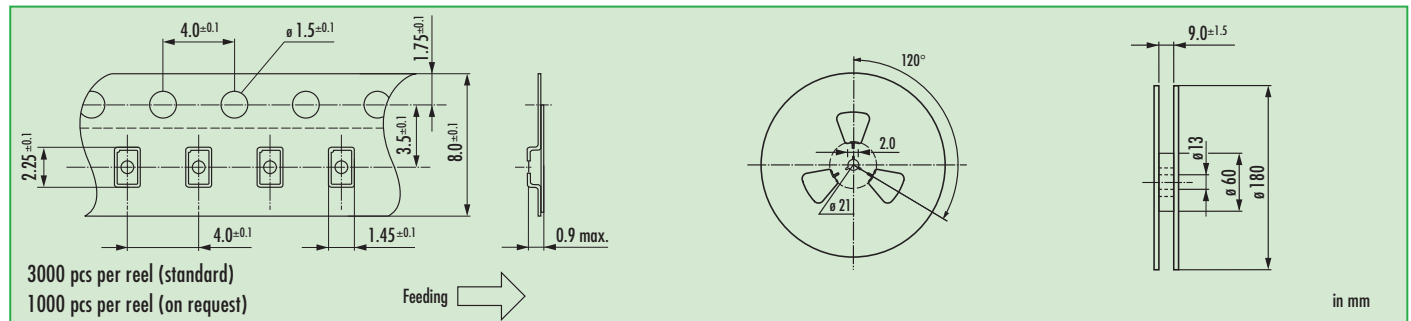
## Order Information

<b>Q</b>	frequency	type	load capacitance	stability at 25 °C	option
Quartz	0.032768 MHz	JTX210	12.5 pF standard 9 pF 7 pF	20 = ± 20 ppm 30 = ± 30 ppm	blank = -20 °C ~ +70 °C T1 = -40 °C ~ +85 °C

Example: Q 0.032768-JTX210-12.5-20-T1-LF (Suffix LF = RoHS compliant / Pb free pads)

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## Taping Specification



## Reflow Soldering Profile

