



actual size

# Quartz Crystal · JTX520

SMD Tuning Fork Crystal · 4.8 x 1.9 mm

- 32.768 kHz standard
- reflow soldering temperature: 260 °C max.
- package height 1.0 mm max.



## General Data

type	JTX520
frequency	32.768 kHz (30.0 ~ 100.0 kHz on request)
frequency tolerance at 25 °C ± 5 °C	± 10 ppm / ± 20 ppm / ± 30 ppm
load capacitance $C_L$	12.5 pF std. (7 pF ~ 12 pF on request)
temperature constant ( $T_C$ )	$T_C = -0.04 \cdot 10^{-6} / ^\circ C^2$ max. $T_C = -0.034 \cdot 10^{-6} / ^\circ C^2$ typical
frequency temperature characteristic	$f$ (ppm) = $T_C \cdot (25^\circ C - T)^2$ $T$ = requested temperature
operating temperature range	-20 °C ~ +70 °C / -40 °C ~ +85 °C
shunt capacitance $C_0$	1.25 pF typical
series resistance max. (ESR)	80 k $\Omega$ (70 k $\Omega$ ask if available)
storage temperature	-40 °C ~ +90 °C
drive level max.	1.0 $\mu$ W
aging first year	< ± 3 ppm

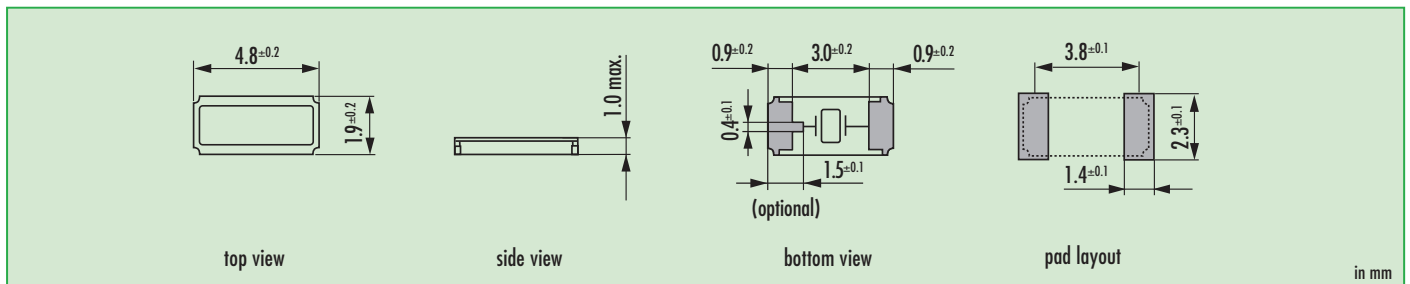
## Frequency Stability vs. Temperature

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

## Marking

company code  
frequency code (optional)  
date code  
production code (optional)

## Dimensions



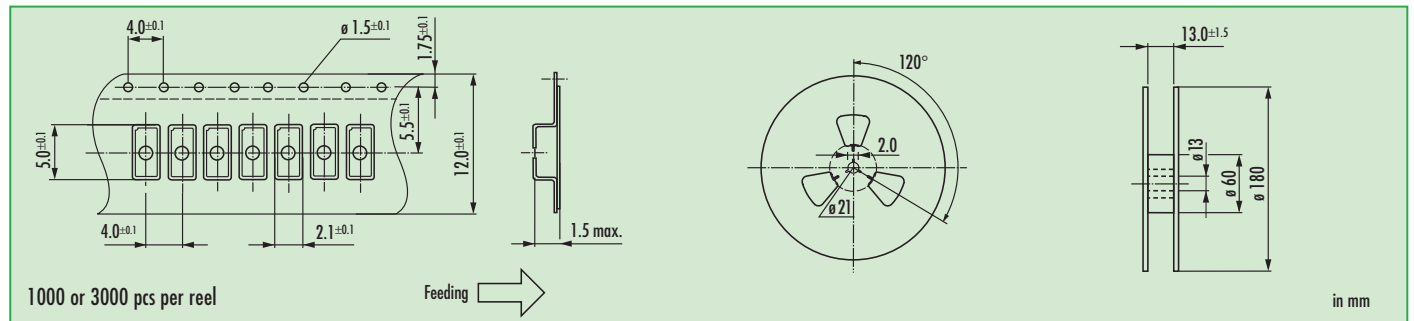
## Order Information

Q	frequency	type	load capacitance	tolerance at 25 °C	option
Quartz	0.032768 MHz	JTX520	7 ~ 12.5 pF 12.5 pF std.	10 = ± 10 ppm 20 = ± 20 ppm 30 = ± 30 ppm	blank = -20 °C ~ +70 °C T1 = -40 °C ~ +85 °C

Example: Q 0.032768-JTX520-12.5-20-T1-LF (Suffix LF = RoHS compliant / Pb free pads)

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## Taping Specification



## Reflow Soldering Profile

