



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 0.9 mm max.



General Data

type	JTX 520
frequency	32.768 kHz (30.0 ~ 153.6 kHz on request)
frequency tolerance at 25 °C ± 5 °C	20 ppm / ± 30 ppm
load capacitance C_L	12.5 pF (7 pF ~ 12.5 pF)
temperature constant	$-0.04 \cdot 10^{-6} / ^\circ\text{C}^2$ max. $-0.034 \cdot 10^{-6} / ^\circ\text{C}^2$ typical
frequency temperature characteristic	$f(\text{ppm}) = -0.04 (25^\circ\text{C} - T)^2$ $T = \text{requested temperature}$
operating temperature range	$-20^\circ\text{C} \sim +70^\circ\text{C}$ / $-40^\circ\text{C} \sim +85^\circ\text{C}$
shunt capacitance C_0	1.3 pF typical
series resistance max. (ESR)	50 k Ω typ. (80 k Ω max.)
storage temperature	$-40^\circ\text{C} \sim +90^\circ\text{C}$
drive level max.	1 μW
aging first year	< ± 3 ppm

Frequency Stability vs. Temperature

		- 80 ppm	- 160 ppm	
$-20^\circ\text{C} \sim +70^\circ\text{C}$	STD.	●		
$-40^\circ\text{C} \sim +85^\circ\text{C}$	T1		●	
● standard				

Marking

32.768 date code

date code:

A ~ M: Jan.- Dec.

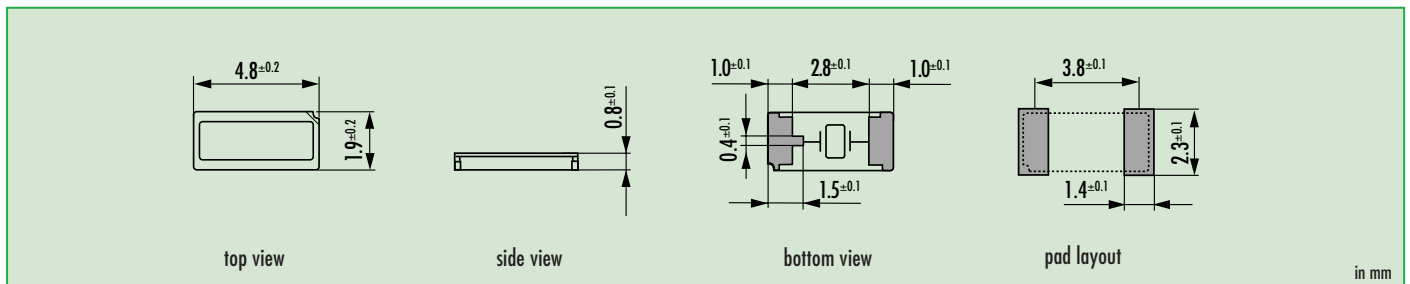
5: 2005

6: 2006

7: 2007

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



Order Information

Q	frequency	type	load capacitance	stability at 25 °C	option
Quartz	0.032768 MHz	JTX520	7 ~ 12.5 pF 12.5 pF std.	20 = ± 20 ppm 30 = ± 30 ppm	blank = $-20^\circ\text{C} \sim +70^\circ\text{C}$ T1 = $-40^\circ\text{C} \sim +85^\circ\text{C}$

Example: Q 0.032768-JTX520-12.5-30 (Suffix LF = RoHS compliant / Pb free pads)



