



actual size

# Quartz Crystal · SMQ32S

SMD Tuning Fork Crystal · 9.2 x 3.4 mm

- 32.768 kHz standard
- reflow soldering temperature: 260 °C max.
- package height 3.0 mm



## General Data

type	SMQ32S
frequency	32.768 kHz (30.0 ~ 80.0 kHz on request)
frequency tolerance at 25 °C ± 5 °C	± 30 ppm
load capacitance $C_L$	12.5 pF std. (6 pF ~ 12.5 pF on request)
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	$f(\text{ppm}) = T_C \cdot (25^\circ\text{C} - T)^2$ $T =$ requested temperature
operating temperature range	-20 °C ~ +70 °C / -40 °C ~ +85 °C
shunt capacitance $C_0$	1.4 pF typical
series resistance max. (ESR)	50 k $\Omega$
storage temperature	-40 °C ~ +90 °C
drive level max.	1 $\mu$ 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 / 32.7 / date code

date code:

A ~ M: Jan. - Dec.

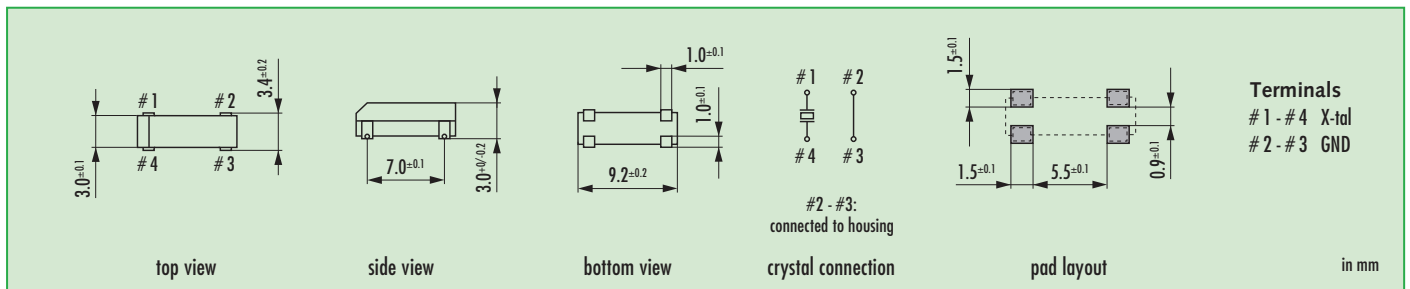
1: 2011 4: 2014

2: 2012 5: 2015

3: 2013 6: 2016

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

