



actual size

Quartz Crystal · SMQ32SL

SMD Tuning Fork Crystal · 8.0 x 3.8 mm

- 32.768 kHz standard
- reflow soldering temperature: 260 °C max.
- package height 2.5 mm max.



General Data

type	SMQ32SL
frequency	32.768 kHz (30.0 ~ 80.0 kHz on request)
frequency tolerance at 25 °C ± 5 °C	± 20 ppm
load capacitance C_L	12.5 pF (6 pF ~ 12.5 pF)
temperature constant	-0.04 · 10 ⁻⁶ / °C ² max. -0.034 · 10 ⁻⁶ / °C ² typical
frequency temperature characteristic	$f \text{ (ppm)} = -0.04 (25^\circ\text{C} - T)^2$ 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)	50 kΩ
storage temperature	-40 °C ~ +90 °C
drive level max.	1 μW
aging first year	< ± 3 ppm

Frequency Stability vs. Temperature

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

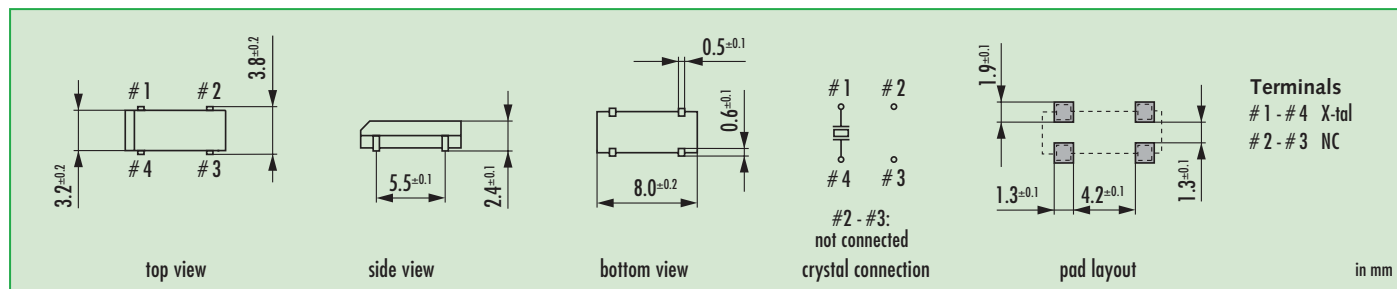
Marking

32.768
company code / 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	SMQ32 SL	6 pF ~ 12.5 pF 12.5 pF Std.	20 = ± 20 ppm	blank = -20 °C ~ +70 °C T1 = -40 °C ~ +85 °C

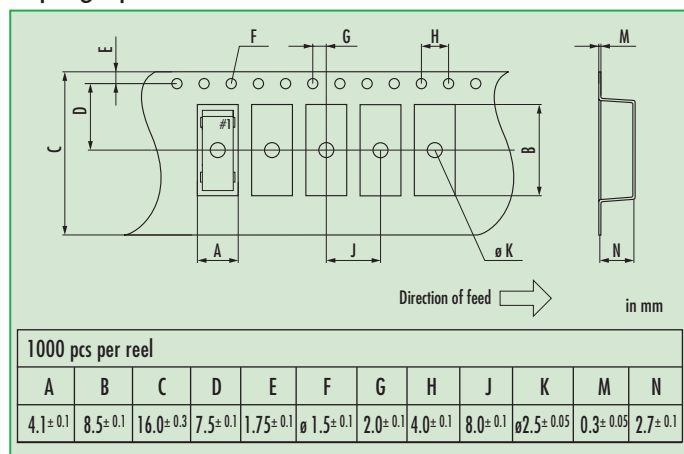
Example: Q 0.032768-SMQ32SL-12.5-30 (Suffix LF = RoHS compliant / Pb free pads)



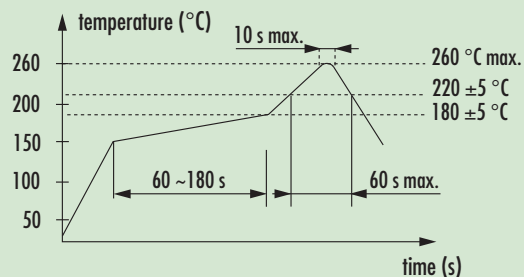
Jauch Quartz GmbH • e-mail: info@jauch.de
full data can be found under: www.jauch.de / www.jauch.fr / www.jauchusa.com
All specifications are subject to change without notice

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Taping Specification



Reflow Soldering Profile



note: parts are also suitable for soldering systems with lead (Pb) content