



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 Ω |
| storage temperature | -40 °C ~ +90 °C |
| drive level max. | 1 μ 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.

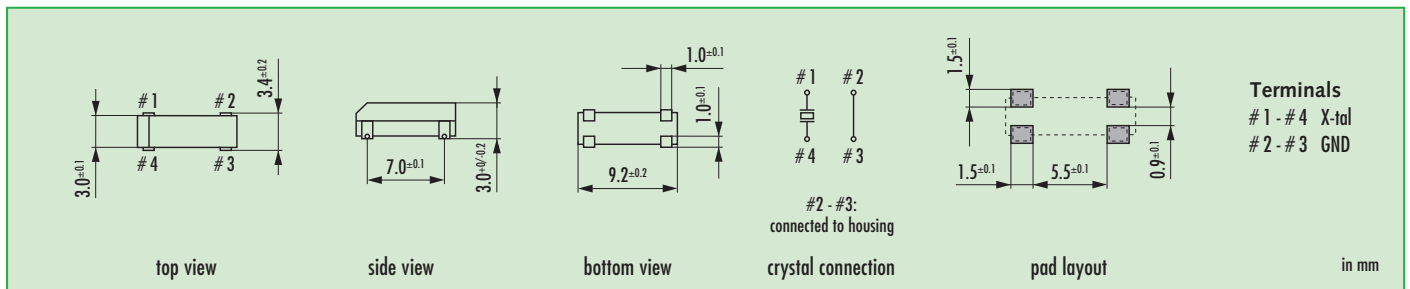
1: 2011 4: 2014

2: 2012 5: 2015

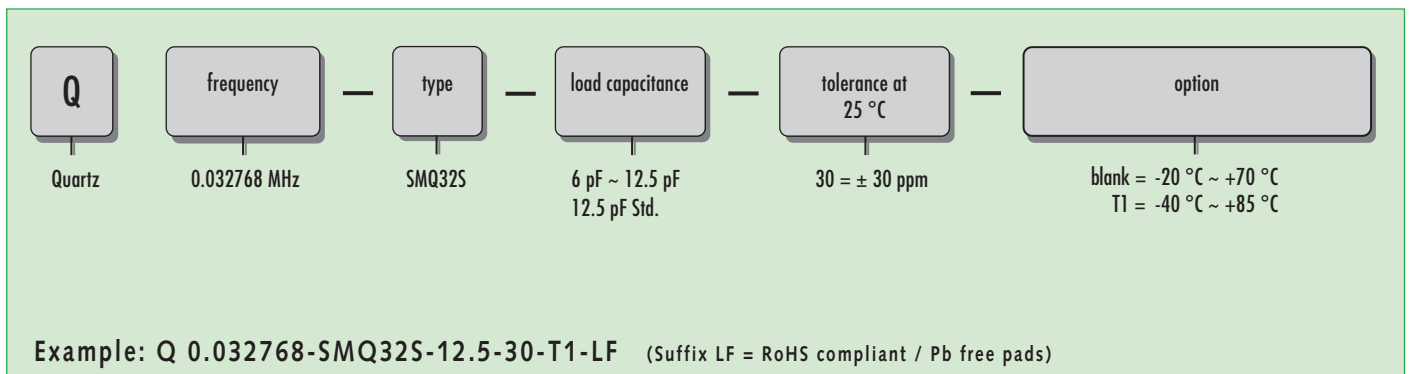
3: 2013 6: 2016

| 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

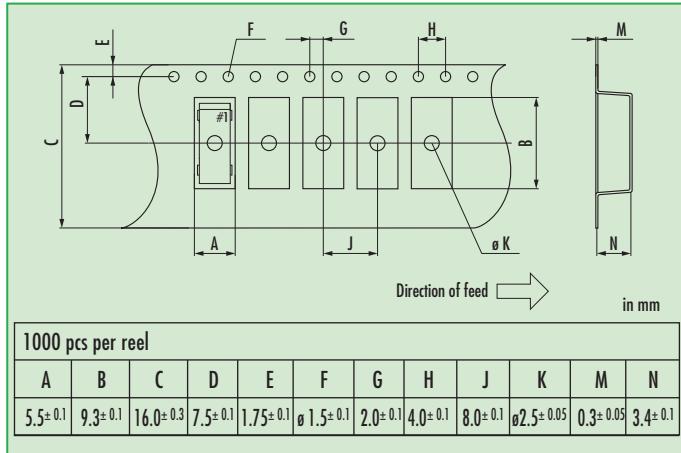


Order Information



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Taping Specification



Reflow Soldering Profile

