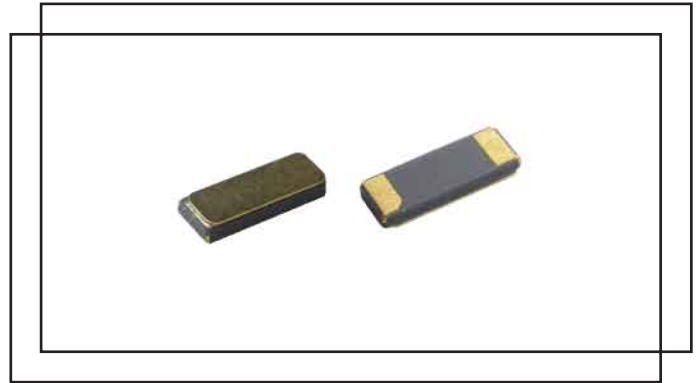


XD smd watch crystal 32.768kHz

- # (3.2 x 1.5)mm ceramic package
- # or (4.2 x 1.5)mm ceramic package
- # high stability with vacuum sealing
- # packing: tape & reel 3000pcs/reel
- # RoHS Compliant



Electrical specification

Case style	X31D: (3.2 x 1.5)mm, X41D: (4.2 x 1.5)mm, height 0.9mm
Frequency	32.768kHz
Frequency tolerance	±20ppm at +25°C as standard
Temperature coefficient	-0.04ppm/°C ²
Frequency stability	±100ppm ~ > ±150ppm
Storage temperature	(-55 +125)°C
ESR	70kΩ max.
Shunt capacitance C₀	1.35pF typical
Drive level	0.1μW max.
Q factor	30,000 typical
Ageing	±3ppm first year max.

Ordering information

The X31D and X41D smd crystals may be specified with load capacitance, frequency tolerance, frequency stability and temperature range with each parameter coded as follows....

Example X31D crystal, 32.768kHz, load 12.5pF, ±20ppm at 25°C, ±100ppm(-20+70)°C

TFC PART NUMBER X31D 32.768K M C H C

'X31D' crystal series: X31D
 '32.768K' frequency: 32.768K = 32.768kHz
 'M' load capacitance: M = 12.5pF
 'C' frequency tolerance at +25°C: C = ±20ppm
 'H' frequency stability: H = ±100ppm
 'C' temperature range: C = (-20 +70)°C

Package X31D: (3.2 x 1.5)mm, X41D: (4.1 x 1.5)mm

Load capacitance B: 9pF, M: 12.5pF

Frequency tolerance C: ±20ppm as standard

Frequency stability H: ±100ppm, Z: >±100ppm

Temperature range C: (-20+70)°C, L: (-40+85)°C

X31D / X41D dimensions(mm)

