3 x 8 Series

3.0 x 8.0mm Watch crystal

REACH and RoHS compliant
Cylinder type through hole watch crystal

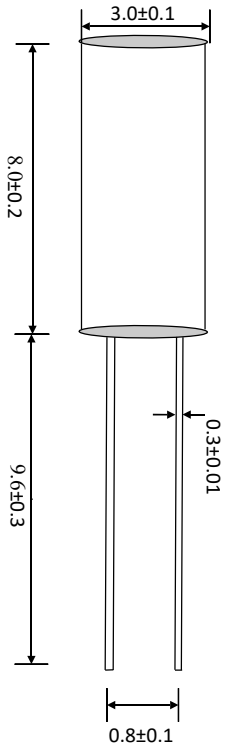
Parameters		Specification	Remarks
Frequency	F_nom	32.768kHz	
Frequency tolerance	F_tol	±5ppm, ±10ppm, ±20ppm, ±50ppm	at 25°C ± 3°C
Operating temperature range	T_use	-10°C ~ +60°C, -20°C ~ +70°C,-40°C ~ +85°C	
Storage temperature	T_stg	-40°C ~ +85°C	
Temperature coefficient	K	-0.035±0.0086ppm/°C²	
Turnover temperature	Ti	25°C ± 5°C	
Load capacitance	CL	6pF ~ 12.5pF	
Equivalent series resistance	ESR	30KΩ max	
Motional capacitance	C1	3.0fF typical	
Shunt capacitance	C0	1.8pF typical	
Quality factor	Q	60,000	
Drive level	DL	1.0μW max	
Frequency aging	F_age	±5.0ppm max	First year
Insulation resistance	IR	500MΩ min	at DC100V ± 15V

Part number generation

OJ	00003	G	I	H	D	-PF
ACT Series Code	Frequency (KHz)	Frequency Tolerance (±ppm)	Operating Temperature Range (°C)	Load capacitance (CL)	Packaging (Tape & Reel)	RoHS
OJ	32.768kHz = 00003	±5 = A ±10 = C ±20 = G ±50 = N ±100 = P	-10 ~ +60 = B -20 ~ +70 = D -40 ~ +85 = I	6.0pF = N 7.0pF = M 9.0pF = K 12.5pF = H	Loose = L	RoHS = -pF

Notes:
1. It is important to suffix the above part number with full frequency required to give a completed part number as illustrated below. Full Example Part Number : **OJ00003GIHD-PF [32.768kHz]**

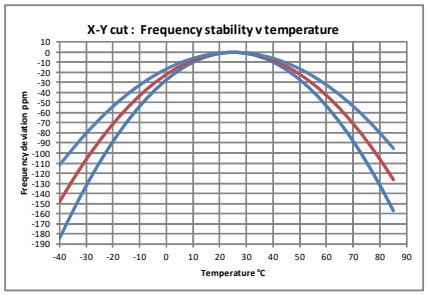
Dimensions (unit : mm)



Soldering guide

Lead should be soldered within 10 seconds with a tip temperature not exceeding 270°C. The device should be ideally be mounted upright on the PCB.

Frequency vs temperature stability



Drawing control: (Internal use only)
Commodity code : 854160 00 00
Issue number : N2
Date : 01/02/2021
Internal reference : H3

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