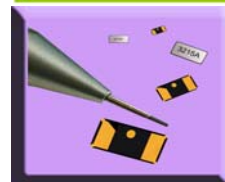


ACT3215A SMX

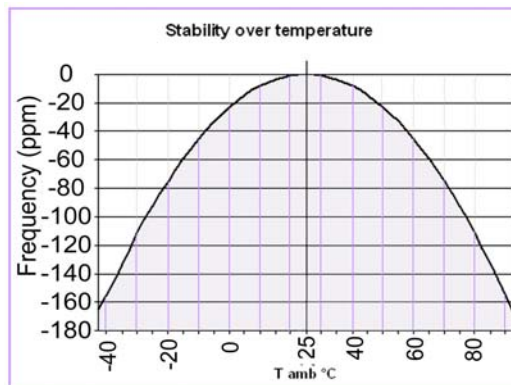
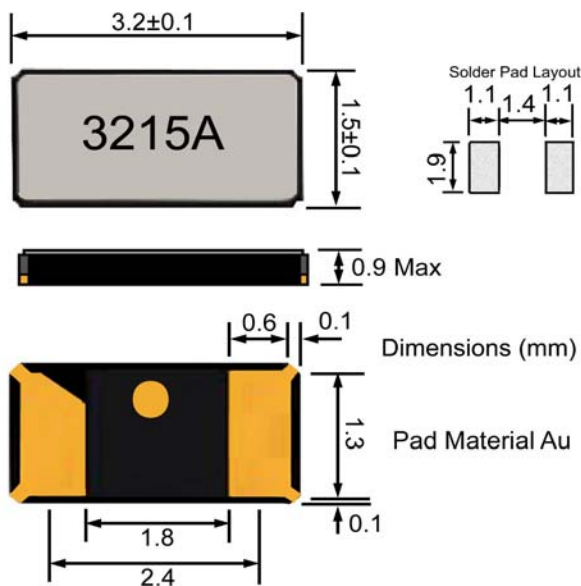
Compatible with Eu Directive
2002/EC - RoHS



The ACT3215A is a miniature surface mount high density Watch Crystal in a seam sealed metal lid ceramic package offering light weight and low height. High stability is assured with a vacuum. It is very suitable for portable equipment and close component packing density requirements. The product is available taped and reeled on 3,000 piece reels and is fully RoHS compatible.

Specification

Parameter	Symbol	Specification	condition
Nominal Frequency	fo	32.768KHz	
Frequency Tolerance @25°C	Δf/fo	±20ppm	DL 0.1μW
Frequency v Temperature	Δf/fo	See Drawing Below	
Turnover Temperature	Tm	25°C ±5°C	
Temperature Coefficient	β	-0.034±0.006ppm / °C ² max	
Temp Operating Range	Topr	-40 ~ +85°C	
Temp Storage Range	Tstg	-55 ~ +125°C	
Equivalent Series Resistance	ESR	70KΩ max	
Load Capacitance	CL	12.5pF (standard)	9pF and 7pF available please specify
Shunt Capacitance	C0	0.95pF Typical	
Motional Capacitance	C1	0.0033pF Typical	
Drive Level	DL	1.0μW max	
Insulation Resistance	IR	500MΩ @ 100±15VDC min	
Aging	Fa	±3ppm max	First year, 25°C ±3°C
Reflow		Please refer to page 2	
Leakage		<1X10 ⁻⁹ hpa · 1/s	Helium leakage



ACT 3215 Material Content			
Material	Mass Grams	Material	Mass Grams
Ag	0.0720	Mo	0.0458
Al2O3	6.7161	Ni	1.0202
Au	0.8505	Pd	0.0001
CaO	0.0275	Si Resin	0.0080
Co	0.5066	SiO2	0.5674
Cr2O3	0.2837	Sn	0.0800
Cu	1.5840	Ti	0.0006
Ge	0.0648	TiO2	0.0732
MgO	0.0366	W	1.4000
Total	13.33676g		

Marking

y = Last character of Year (eg 2=2012)
 m = Month

Marking	1	2	3	4	5	6	7	8	9	X	Y	Z
Month	1	2	3	4	5	6	7	8	9	10	11	12

+++ = Lot No,

ym +++

Example:

27256

July 2012 Lot No 256

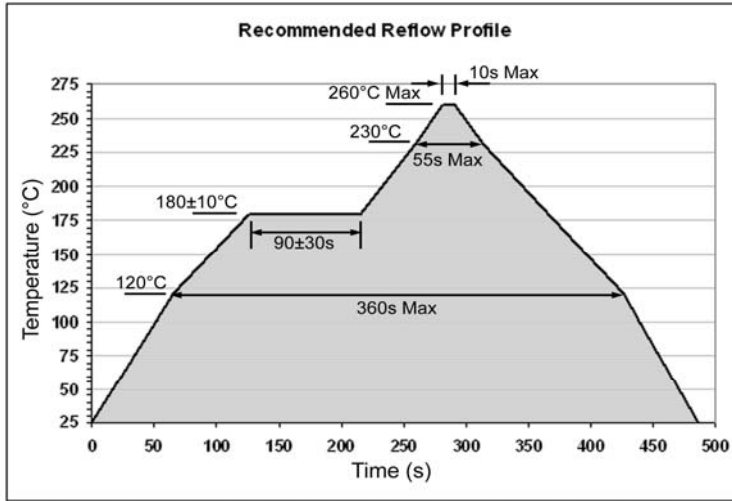
In line with our ongoing policy of product evolution and improvement, the above specification may subject to change without notice

ISO9001:2000 Registered

For quotations or further information please contact us at:
 3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

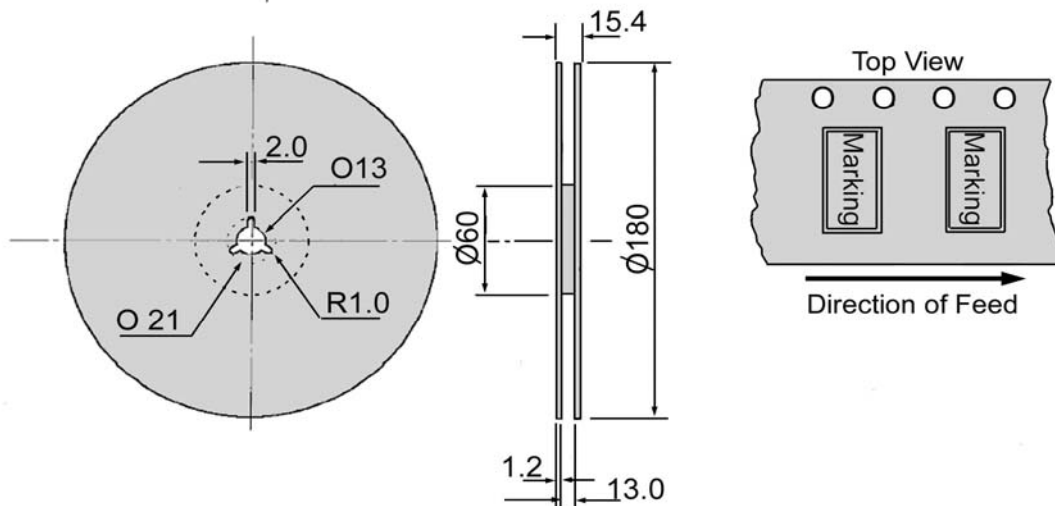
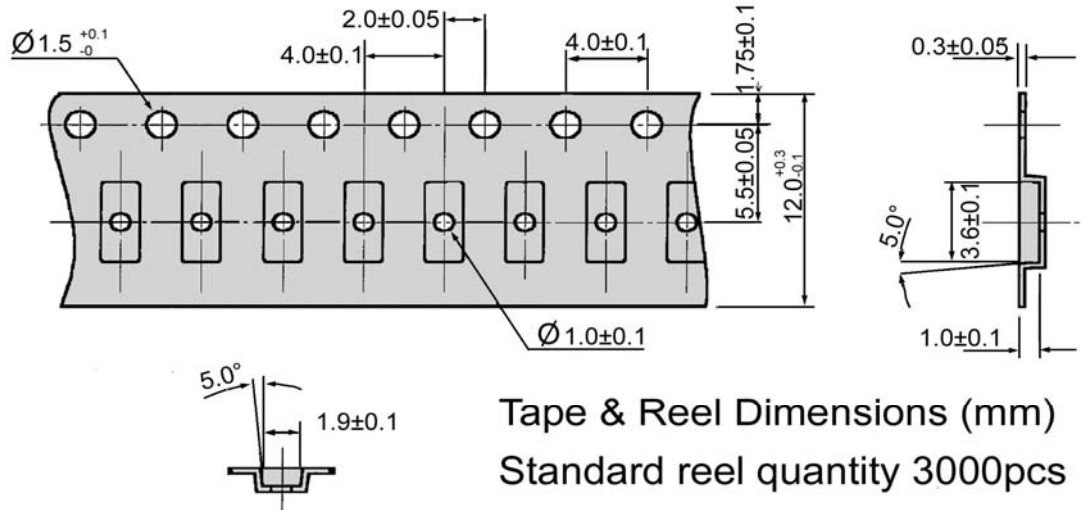
<http://www.actcrystals.com>

ACT3215 SMX continued



Note:

Crystal products may be affected or even destroyed by ultrasonic cleaning. Undertake trials of any cleaning process before committing that process to production.



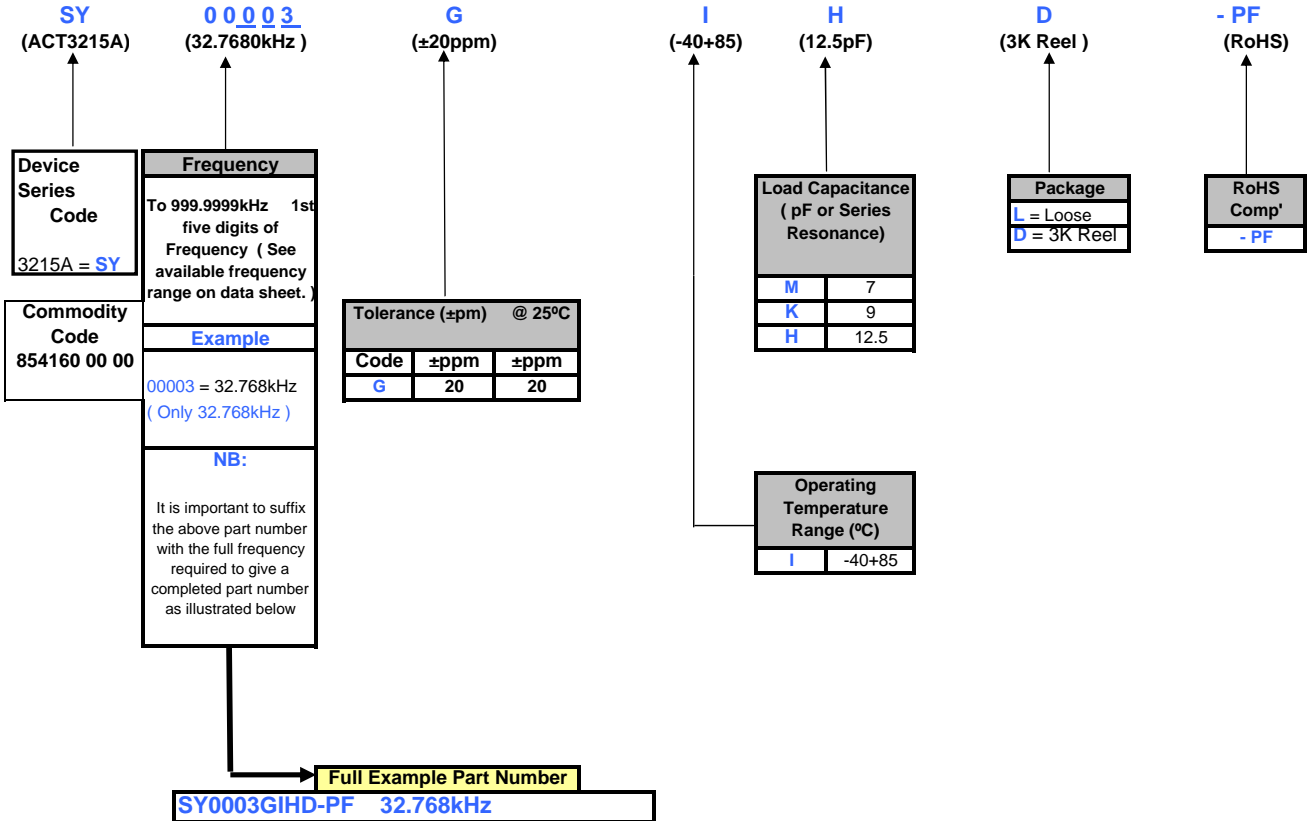
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ACT3215A WATCH CRYSTAL (32.768kHz) - PART NUMBERING

Example :



NOTES :

- 1) Other Tolerances, CL's and other Operating Temperature Ranges may be available. As each of these specification parameters impact on each other, it is not always possible to combine all options in one device. Therefore, if a specification not catered for above is required, please contact us directly for the relevant part number code(s).
- 2) ACT are always happy to consider truly custom specification parts which may require non-standard specification parameters, specific testing, customer requested AQL requirements, non standard packaging or taping and reeling and custom marking. (MOQ DEPENDENT) Such devices would normally be allocated a custom specification (An ACT200A
- 3) Stability Over Operating Temperature (°C) please refer to the data.

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