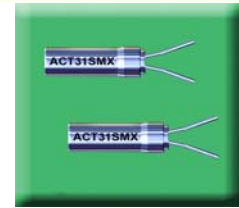Compatible with Eu Directive
2002/EC - RoHS

ACT31SMX

The ACT31SMX is a compact SMD crystal resonator offering high vibration and shock resistance together with high stability. It is very suitable for portable equipment and close packing density. The device is offered with frequencies between 3.579545 and 10.0MHz.

Specification (Reels of 1K pieces)

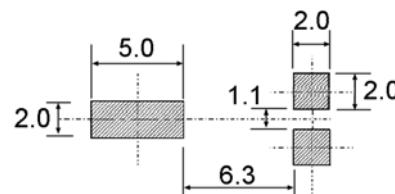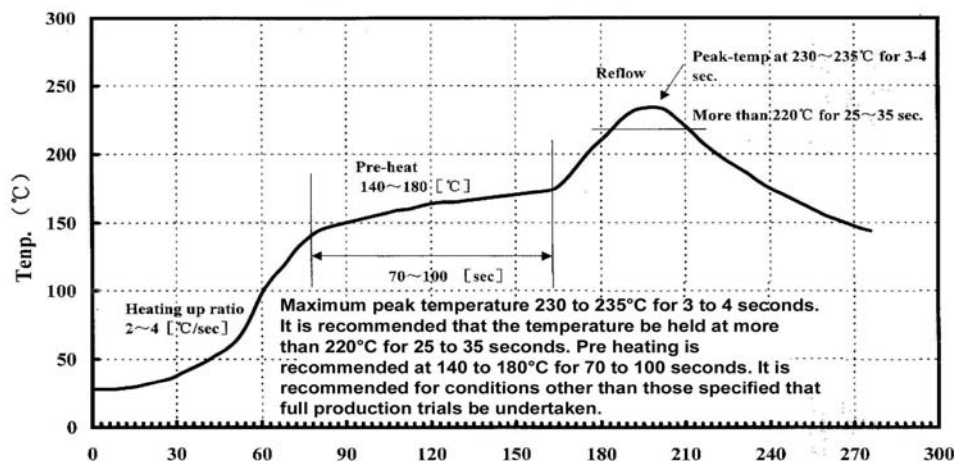| Parameter	Symbol	Specification	Condition
Frequency	fo	3.579545-10MHz	AT cut Fundamental
Frequency Tolerance @25°C	Δf/fo	±10~50ppm (±30ppm typical)	Please specify
Frequency Stability @ -10~+60°C	Δf/fo	±30~50ppm (±30ppm typical)	Please specify
Temp Operating Range	Topr	-10 ~ +70°C	
Temp Storage Range	Tstg	-40 ~ +85°C	
Equivalent Series Resistance	ESR	200Ω max	fo 3.579545~3.999MHz
		150Ω max	fo 4.0~4.999MHz
		120Ω max	fo 5~5.999MHz
		100Ω max	fo 6~6.999MHz
		80Ω max	fo 7~8.999MHz
		60Ω max	fo 9~10MHz
Shunt Capacitance	C0	5.0pF typical	
Load Capacitance	CL	16.0pF Typical	Others available
Drive Level	DL	1~100 μ W	
Insulation Resistance	IR	500MΩ Min	DC100V±15V
Aging	Fa	±5ppm max	@ 25°C ±3°C 1st year

Dimensions (mm)
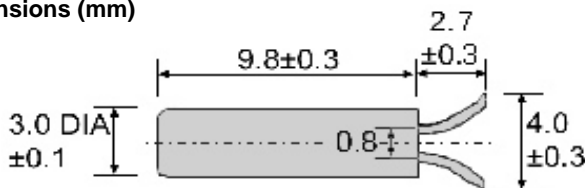
Plating on leads SnCu
Plating on Can Ni

Suggested footprint

To limit the heat transfer to the crystal element it is recommended that the solder paste for the can connection is limited to 2.0x2.0 anywhere within the 2.0x5.0 footprint area

Recommended reflow profile

Maximum peak temperature 230 to 235°C for 3 to 4 seconds. It is recommended that the temperature be held at more than 220°C for 25 to 35 seconds. Pre heating is recommended at 140 to 180°C for 70 to 100 seconds. It is recommended for conditions other than those specified that full production trials be undertaken.

Please enquire for tape and reel specifications.

Customer to specify : Frequency, Frequency Tolerance, Frequency Stability, Load Capacitance
In line with our ongoing policy of product evolvement and improvement, the above specification may be subject to change without notice.
ISO9001: 2000 Registered
For quotations or further information please contact us a
3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK
http://www.actcrystals.com

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