

## ACT533SMX-2

The ACT533SMX-2 is a 2 pad, high quality, cost competitive ceramic packaged, glass sealed crystal. The package provides for the durability and reliability, necessary for strenuous processes like infrared and vapour reflow. The pads are gold plated. The device is very suitable for automatic placement on PCB's. With an excellent range of Fundamental Frequencies ( To 54.0MHz ) allowing for ease of circuit design, and with a good range of stabilities it has become one of the optimum choices for design engineers. Applications include Microprocessor Systems, Instrumentation, Office Automation, Audio Visual and many more. ( Available loose, or on 1,000pc reels to assist with varying volume requirements. )

Compatible with Eu Directive 2002/95/EC - RoHS  
 Contains Pb in sealing glass exempted from Article 4(1) of the directive



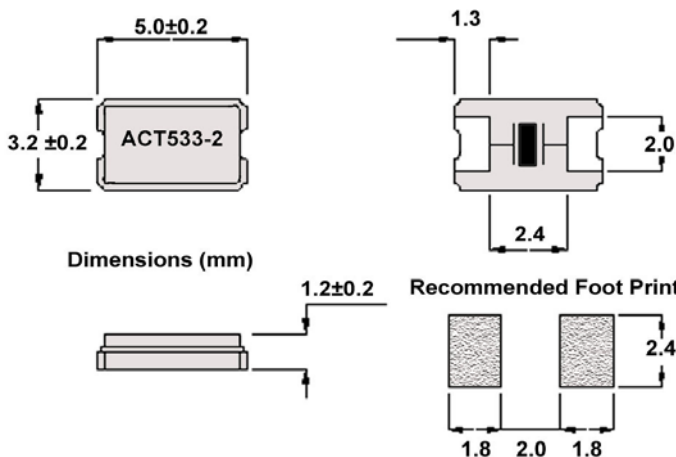
### Specification

Parameter	Symbol	Specification	Condition
Frequency Range	$f_0$	12.00 ~ 48.00 MHz	Please specify
		10-11.99,&48.01~54MHz	Please check on availability
Frequency Tolerance	$\Delta f/f_0$	$\pm 20\text{ppm} \sim 100\text{ppm}$ (@25°C $\pm 3^\circ\text{C}$ )	Refer to Table 2 Please Specify
Stability over Temp Range	Tc	$\pm 20\text{ppm} \sim 100\text{ppm}$ ( Ref to :25°C $\pm 3^\circ\text{C}$ )	Refer to Table 2 Please specify
Temp Operating Range	Topr	-10 ~ +70°C (-40 ~ +85°C option)	Please specify
Temp Storage Range	Tstg	-40 ~ +85°C	
Equivalent Series Resistance	ESR	See table below	
Load Capacitance	CL	8 ~ 30pF or Series Resonance	Please specify
Shunt Capacitance	C0	7pF max	
Drive Level	DL	10 $\mu\text{W}$ ~300 $\mu\text{W}$ max. (100 $\mu\text{W}$ Typical)	
Insulation Resistance	IR	500M $\Omega$ min	@100V DC
Reflow Process		10 Seconds ( max ) @260°C	
Aging	Fa	$\pm 5\text{ppm} / \text{year max}$	@25°C

Frequency Range (MHz)	ESR ( $\Omega$ ) max	Mode
12.0 ~ 19.999	120	Fundamental
20.0 ~ 29.999	70	Fundamental
30.0 ~ 54.000	50	Fundamental

		$\pm 20\text{ppm}$	$\pm 30\text{ppm}$	$\pm 50\text{ppm}$	$\pm 100\text{ppm}$
Tolerance	25°C	Enquire	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stability	-10+60°C	Enquire	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	-40+85°C	Enquire	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Outline



Pad surface material  
**Au**

Lead used as an inapplicability substance in the glass seal and as such is exempt from the RoHS legislation

Please note that all parameters can not necessarily be specified in the same device

Customer to specify : Frequency, Frequency Tolerance, Temperature Stability, Operating Temperature & Load Capacitance

In line with our ongoing policy of product evolution and improvement, the above specification may be 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

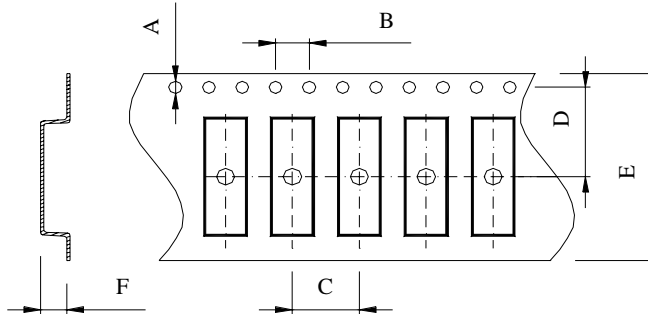
<http://www.actcrystals.com>

Issue 3 H2

Date 05-10-05

**ACT533SMX-2**

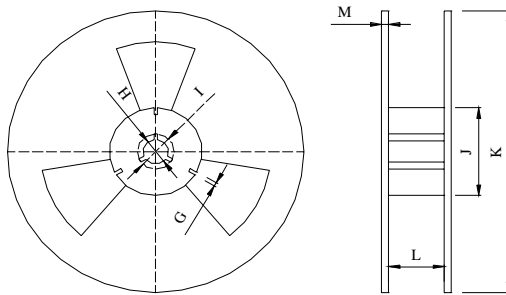
**Tape Dimensions ( Units in mm )**



A	B	C	D	E	F
1.5	4.0	8.0	5.5	12.0	1.5

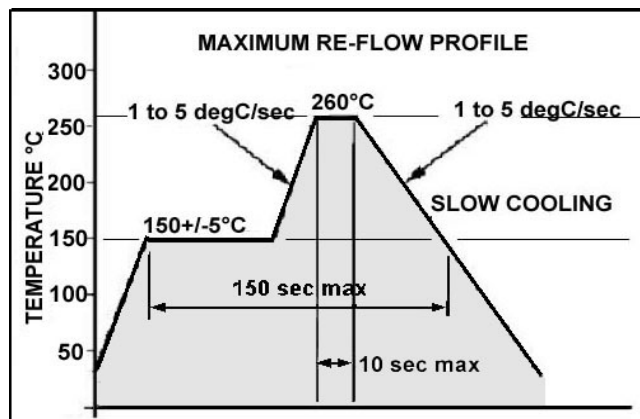
**Reel Dimensions ( Units in mm )**

**\* 1,000 piece reels**



G	H	I	J	K	L	M
2.5	13.5	21.6	60.0	178.0	13.5	1.6

**Re-flow Conditions**



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