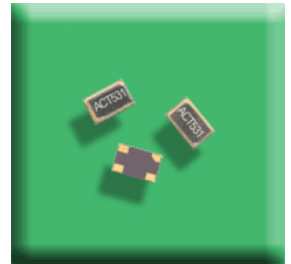


## ACT531SMX-4

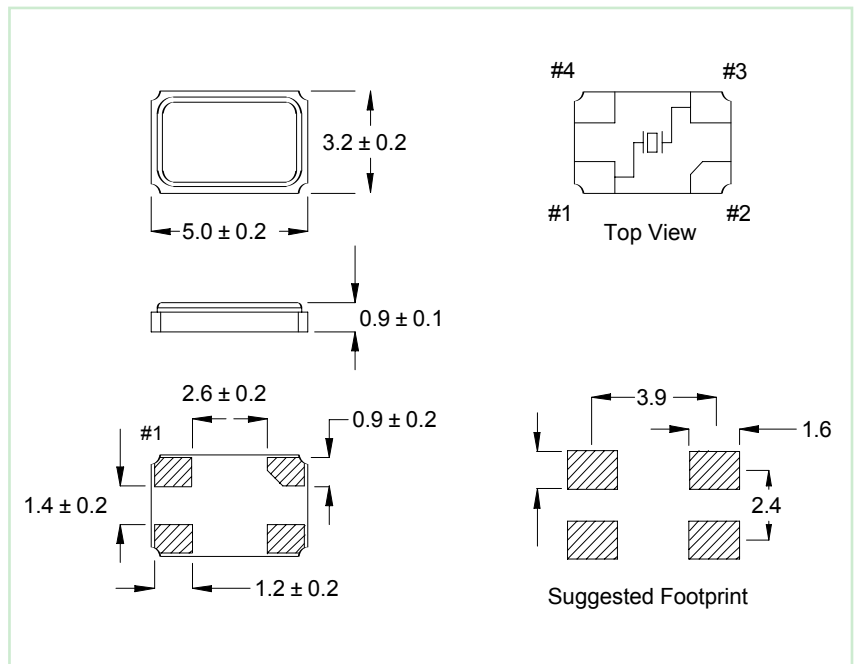
The ACT531SMX-4 family utilises a highly reliable seam welded ceramic package. Suitable for reflow soldering, this product is designed for applications where small size ( Height 1mm max ) precision and performance are important. This device is particularly suitable for applications such as mobile communications, paging systems, hand held instrumentation, in fact anywhere where packing density is required.



Parameter	Symbol	Specification	Condition
Frequency Range	fo	10.00 ~ 60.00MHz	AT cut - Fundamental 3rd Overtone on application
Frequency Tolerance	$\Delta f/fo$	$\pm 5\text{ppm}$ , $\pm 10\text{ppm}$ , $\pm 15\text{ppm}$ , $\pm 20\text{ppm}$	@25°C $\pm 3^\circ\text{C}$
Temp Operating Range	Topr	-10 ~ 60°C	Others available, please specify
Stability over Temp Range	$\Delta f/fo$	$\pm 5\text{ppm}$ , $\pm 10\text{ppm}$ , $\pm 15\text{ppm}$	Please specify (see table)
Temp Storage Range	Tstg	-40°C to +85°C	
Equivalent Series Resistance	ESR	See table below	Dependant on cut and frequency
Shunt Capacitance	C0	5.0pF max	
Load Capacitance	CL	5pF ~ 40pF or SR	Please specify
Drive Level	DL	50 $\mu$ W max $\pm 10\mu\text{W}$	
Insulation Resistance	IR	500M $\Omega$ max	@ DC 100V $\pm 15\text{V}$
Aging	$\Delta f/fo$	$\pm 1\text{ppm/year}$ $\leq 20.00\text{MHz}$ $\pm 2\text{ppm/year}$ $\leq 30.00\text{MHz}$ $\pm 3\text{ppm/year}$ $\leq 40.00\text{MHz}$ $\pm 2\text{ppm/year}$ $\leq 50.00\text{MHz}$	Fundamental Fundamental Fundamental Fundamental

Frequency ( MHz )	ESR max ( $\Omega$ )	Mode
10.000 ~ 13.000	80	Fund. AT Cut
13.001 ~ 16.000	60	Fund. AT Cut
16.001 ~ 45.000	40	Fund. AT Cut

Op.Temp (°C)	Freq Stab ( $\pm\text{ppm}$ )			
	5	10	15	20
-10~60	√	√	√	√
-20~70		√	√	√
-30~80			√	√



Please note that not all parameters can necessarily be specified in a single device

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