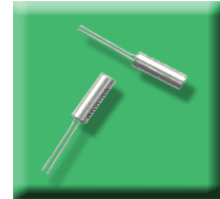


## ACT31

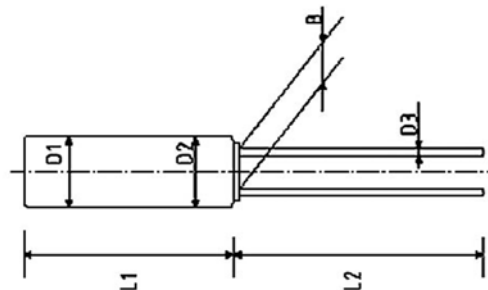
Compatible with Eu Directive  
2002/EC - RoHS

The ACT31 is a compact crystal resonator offering high vibration and shock resistance together with high stability. It is most suitable for portable equipment and close packing density. The device is offered with frequencies between 3.5 and 4.0MHz.



### Specification

Parameter	Symbol	Specification	Condition
Frequency	fo	3.579545-10MHz	
Frequency Tolerance @25°C	$\Delta f/fo$	$\pm 10\sim 50\text{ppm}$ (TYP $\pm 30\text{ppm}$ )	
Frequency Stability	$\Delta f/fo$	$\pm 10\sim 50\text{ppm}$ (TYP $\pm 30\text{ppm}$ )	-10 ~ +60°C
Temp Operating Range	Topr	-10 ~ +70°C	
Temp Storage Range	Tstg	-40 ~ +85°C	
Equivalent Series Resistance	ESR	200 $\Omega$ max	fo 3.579545~3.999MHz
		150 $\Omega$ max	fo 4.0~4.999MHz
		120 $\Omega$ max	fo 5~5.999MHz
		100 $\Omega$ max	fo 6~6.999MHz
		80 $\Omega$ max	fo 7~8.999MHz
		60 $\Omega$ max	fo 9~10MHz
Shunt Capacitance	C0	5.0pF typical	
Load Capacitance	CL	16.0pF (Others available.)	Please specify
Drive Level	DL	10~100 $\mu$ W ( 30 typ)	
Insulation Resistance	IR	500M $\Omega$ Min	DC100V $\pm$ 15V
Aging	Fa	$\pm 5\text{ppm}$ max	@ 25°C $\pm 3^\circ\text{C}$ 1 <sup>st</sup> year



Type	L1	L2	D1	D2	D3	B
ACT31	9.9	9.6	$\phi 2.95$	$\phi 3.0$	$\phi 0.3$	0.8

### SOLDERING of CYLINDER CRYSTALS

Lead wire should be soldered within 5 seconds with the iron having a tip temperature of less than 270°C. Case must not exceed 150°C

With regard to wave soldering it is recommended that the process is carried out with the crystal unit set upright on the circuit board. Should the process be carried out with the crystal unit on its side then steps must be taken to prevent heat transfer through the can.

Should the whole crystal unit be heated (in a re-flow oven for example) it will result in a marked deterioration of the performance or even failure to oscillate. This is due to the internal construction of the crystal unit which involves the use of solder.

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

Customer to Specify : Frequency, Frequency Tolerance, Operating Temperature Range & 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:

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<http://www.actcrystals.com>

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