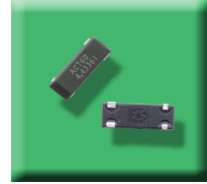


Compatible with Eu Directive  
 2002/95/EC - RoHS  
 Contains Pb>85% high melting  
 point solder exempted from  
 Article 4(f) of the directive

## ACT86SMX

Compact in size, the Surface Mount, plastic packaged **ACT86SMX** is ideal for high density packing and automatic placement on circuit boards. The device has, as its core, a heat resisting cylinder type crystal which makes full use of AT cut crystal characteristics. This device can be used in a variety of applications such as Communications, Audio Visual, Measurement and Portable Equipments. The footprint is an industry standard layout and is compatible with other popular plastic crystals in this package.



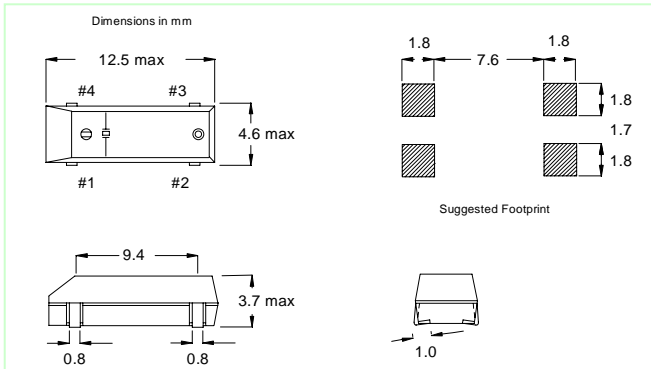
### Specification

Parameter	Symbol	Specification	Condition
Frequency Range	fo	3.5MHz ~ 32MHz 30MHz ~ 70MHz	Fundamental 3rd Overtone
Frequency Tolerance @25°C	$\Delta f/fo$	$\pm 30\text{ppm} \& 50\text{ppm}$	Please specify
Temp Operating Range	Topr	-10°C ~ +60°C ( -40°C~+85°C available)	Please specify
Stability over Temp Range	Tc	$\pm 50\text{ppm}$ ( $\pm 30\text{ppm}$ option for 6.00MHz & over)	Please specify
Temp Storage Range	Tstg	-55°C ~ +125°C	
Equivalent Series Resistance	ESR	See table below	@25°C
Shunt Capacitance	C0	7pF max	
Load Capacitance	Cl	10 ~ 32pF & SR	Please specify
Drive Level	DL max	50 ~ 100 $\mu$ W	
Insulation Resistance	IR	500M $\Omega$ Min	DC 100V $\pm$ 15V
Aging (First Year)	Fa	$\pm 5\text{ppm}$	@25°C $\pm 3^\circ\text{C}$

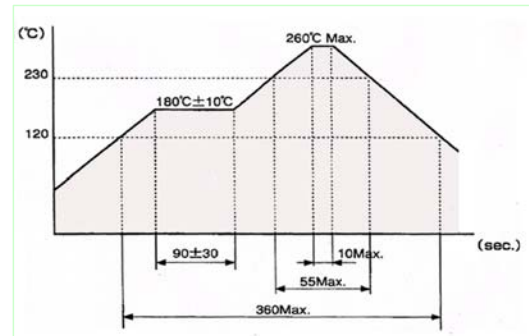
Frequency (MHz)	ESR ( $\Omega$ ) max	Mode
$3.50 \leq fo \sim <4.00$	200	Fundamental
$4.00 \leq fo \sim <6.00$	150	Fundamental
$6.00 \leq fo \sim <10.00$	100	Fundamental
$10.00 \leq fo \sim <36.00$	50	Fundamental
$30.00 \leq fo \sim <36.00$	100	3rd Overtone
$36.00 \leq fo \sim <70.00$	80	3rd Overtone

Pad Surface Finish  
 95Sn/5Cu

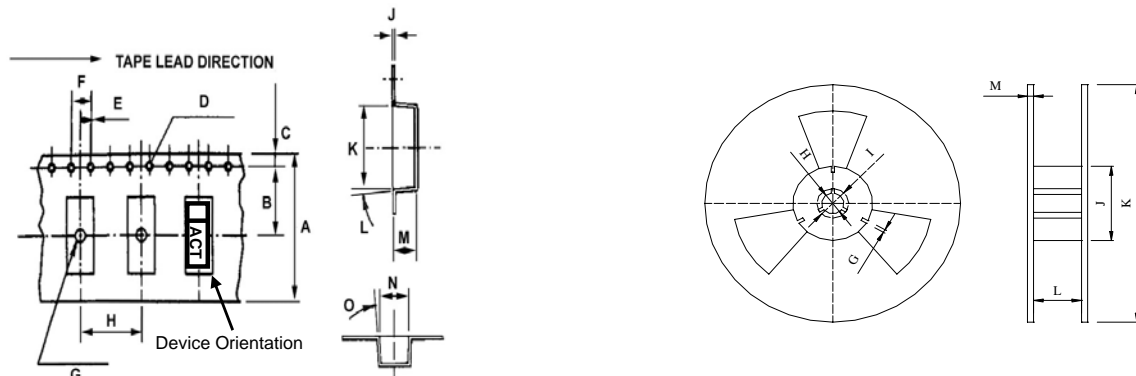
### Dimensions



### Recommended Reflow Profile



### TAPE AND REEL SPECIFICATIONS (Standard Reel Size 1kpcs)



#### TAPE DIMENSIONS ( Units :mm )

A	B	C	D	E	F	G	H	J	K	L	M	N	O
24.0	11.5	1.75	1.5	2.0	4.0	2.2	12.0	0.4	12.8	3	3.8	4.8	3
$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1-0$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$\pm 0.05$	$\pm 0.1$	deg	$\pm 0.1$	$\pm 0.1$	

#### REEL DIMENSIONS ( Units :mm )

G	H	I	J	K	L	M
2	13	21	100	330	25.5	2.0
	dia	dia	dia	dia		

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

Customer to specify : Frequency, Frequency Tolerance, Temperature Stability, 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:  
 3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

<http://www.actcrystals.com>

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