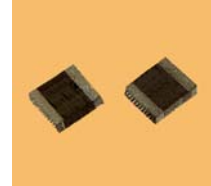


## ACT ZTACS SMD Resonators

Compatible with Eu Directive 2002/95/EC - RoHS  
 Contains Pb in ceramic parts exempted from article 4(1) of the directive

The ACT ZTACS family comprise of a range of surface mount, ceramic resonators ("chip" type) in two pad format. This family offers a cost effective solution to those applications where a wide temperature range, accuracy to  $\pm 0.5$ , small size and surface mounting are the requirements.

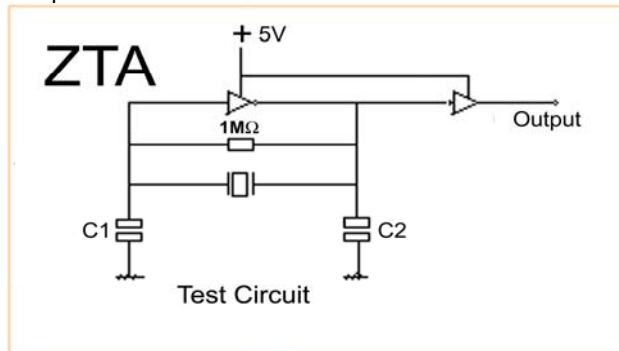
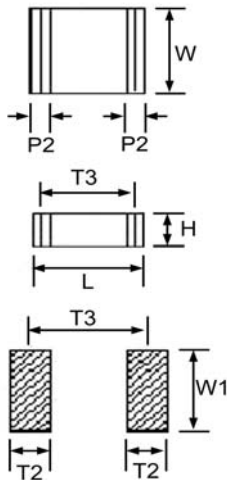


### Specification

Part Type/ Number	Frequency Range (MHz)	Test IC	Frequency Accuracy (%) (-20 ~ +80 °C)	Stability over temp. range (-20 ~ +80°C)	Aging over Ten Year (%)	Capacitors (pF) (Ext. & Int.) C1 & C2
ZTACS MT	5.00 ~ 13.00	CD4069UBE x 2	$\pm 0.5$	$\pm 0.4\%$	$\pm 0.3$	30 External Capacitor.
ZTACS MX	13.01 ~ 20.00 20.01 ~ 25.99 26.00 ~ 50.00 50.01 ~ 60.00	74HCU04 x 2	$\pm 0.5$	$\pm 0.4\%$	$\pm 0.3$	30 ) 15 ) External Capacitor. 5 )
Specification may vary from above please enquire						

For frequencies from 5.0 to 8.0MHz it is recommended to use ZTACC MG series as the characteristics are better. Most frequencies of the ZTA CS will eventually be phased out in favour of the smaller package devices. For new applications the ZTACV MT is recommended for frequencies from 8 to 13MHz and the ZTACV MX for 16 to 60MHz.

ZTACS/CV MT/MX



ZTACS MG	L	W	H	P2	T2	T3	W1
	4.7 $\pm$ 0.2	4.1 $\pm$ 0.2	1.6 $\pm$ 0.3	0.8 $\pm$ 0.4	0.8 $\pm$ 0.2	1.95 $\pm$ 0.2	5.1 $\pm$ 0.2

Pad material Sn

The piezo electric ceramic contains lead greater than the RoHS limit as an inapplicability substance. Excluded from RoHS legislation

### Important note when using Ceramic resonators with micro controllers:

Some resonator parameters vary considerably with frequency and physical construction/size. These differences are too great to be able to be practically shown in a data sheet.

However, these parameters can be critical when the resonators are used with micro controllers. Even if two different resonators appear to have the same specification the typical values of these critical parameters can be considerably different. When enquiring about resonators for use with micro controllers it is important to supply the make and part number of the IC to be used and/or the list of recommended resonators, if this is given.

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

Customer to specify : Frequency

In line with our ongoing policy of product evolution and improvement, the above specification may be subject to change without notice

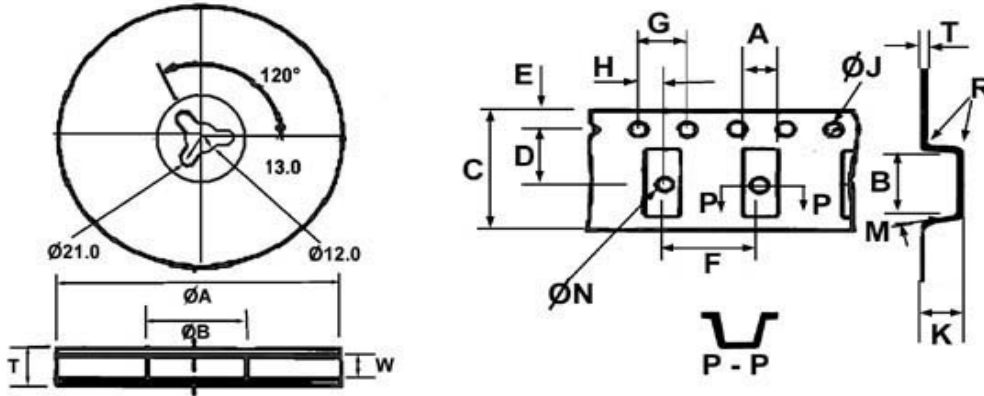
ISO9001:2000 Registered

Issue : 8 C1r

For quotations or further information please contact us at:  
 3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

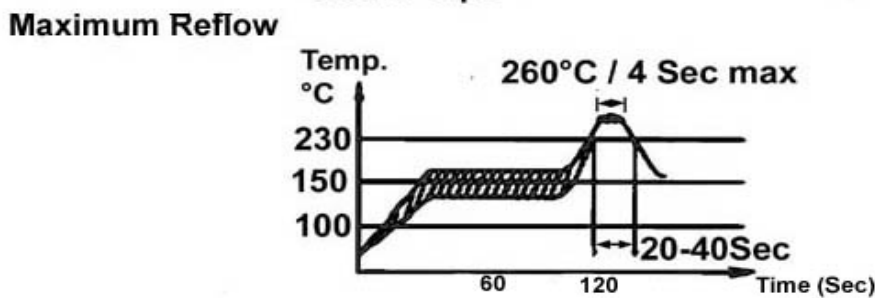
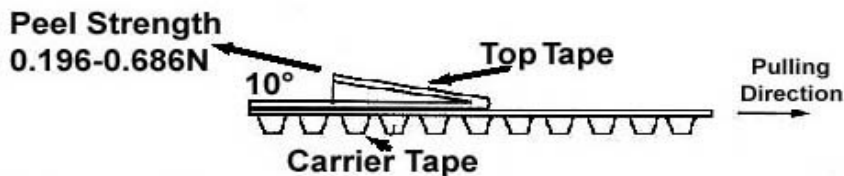
<http://www.actcrystals.com>

## ACT ZTACS TAPE AND REEL / SOLDERING INFORMATION



	ØA	ØB	W	T	Pieces / reel	Carrier Tape (mm)
CS/CV	179±2	60typ	12.4min	19.4max	1000typ	12
	179±2	60typ	16.4min	22.4max	1000typ	16
	330±3	80min	12.4min	19.4max	4000typ	12
CC	330±3	80min	22.4min	22.4max	4000typ	16

	A	B	C	D	E	F	G	H	JØ	NØ	M	R	K	T
	±0.2	±0.2	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	max	max	±0.2	±0.1
ZTACCMG ZTTCCMG	3.8	7.5	16	7.5	1.75	4	4	2	1.6	1.6	3°	0.3	2.1	0.3
ZTACSM T/MX ZTTCSM T/MX	5.0	4.4	12	6.5	1.75	4	4	2	1.6	1.6	3°	0.3	1.4	0.3
ZTACVM T/MX ZTTCVM T/MX	3.4	4.0	12	6.1	1.75	4	4	2	1.6	1.6	3°	0.3	1.3	0.3



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Date :28/06/06

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