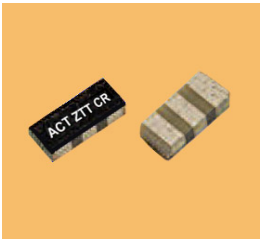


ACT ZTTCR SMD Resonators

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

The ACT ZTTCR family of Ceramic SMD Resonators offers a cost effective solution for applications requiring good stability over a wide temperature range, together with accuracy to $\pm 0.5\%$.



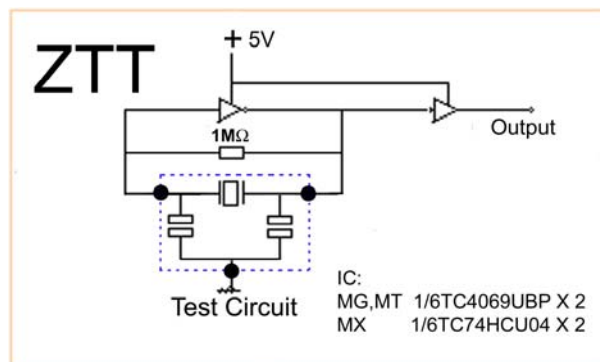
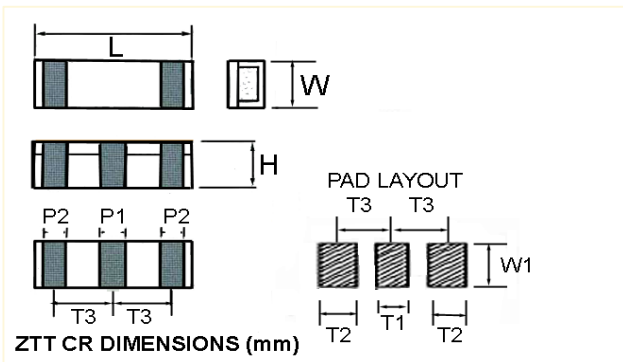
Specification

Part Type/ Number	Frequency Range MHz	Test IC	Vdd	Frequency accuracy @25°C (%)	Stability over temp. range (-20 +80°C)(%)	Aging over 10 years (%)
ZTTCR MG	4.0 ~ 8.0	TC4069UBP x 2	+5V	± 0.5	± 0.3	± 0.3

Operable temperature range -25~+85°C

Vibration Mode: Thickness shear

Pad Material: Top and bottom pads Sn over Sn Ag



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

	L	W	H	P1	P2	T1	T2	T3	W1
	± 0.2	± 0.2	MAX	± 0.2	± 0.2	± 0.2	± 0.2	± 0.2	± 0.2
ZTT CR MG	4.5	2.0	1.2	0.8	0.8	0.8	0.8	1.5	3.0

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 : 10 C1r

For quotations or further information please contact us at:

Date : 14/11/08

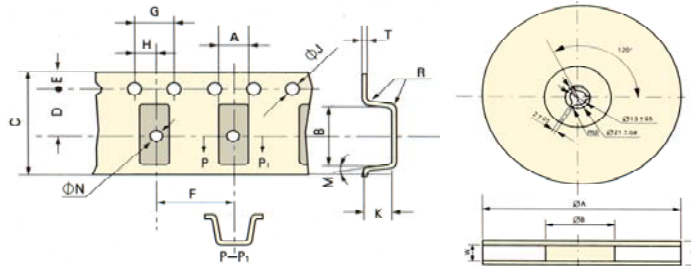
3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

<http://www.actcrystals.com>

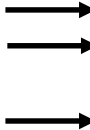
ACT ZTTCR SMD Resonators TAPE & REEL / SOLDERING INFORMATION

Tape and reel dimensions (mm)

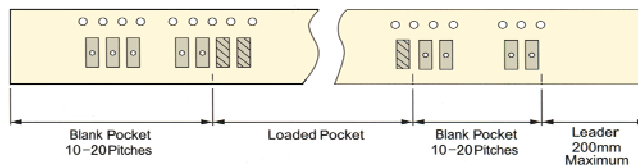
	A	B	C	D	E	F	G	H	J Ø	N Ø	M	R	K	T
	±0.2	±0.2	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	max	max	±0.2	±0.2
ACT ZTACC MG	3.8	7.8	16.0	7.5	1.8	8.0	4.0	2.0	1.5	1.6	10°	0.3	2.1	0.3
ACT ZTCC MG	3.8	7.8	16.0	7.5	1.8	8.0	4.0	2.0	1.5	1.6	10°	0.3	2.1	0.3
ACT ZTACR MG	2.2	4.7	12.0	5.5	1.8	4.0	4.0	2.0	1.6	1.6	3°	0.3	1.3	0.3
ACT ZTTCR MG	2.2	4.7	12.0	5.5	1.8	4.0	4.0	2.0	1.6	1.6	3°	0.3	1.3	0.3
ACT ZTA CS MT/MX	5.0	4.4	12.0	5.5	1.8	8.0	4.0	2.0	1.5	1.6	10°	0.3	1.8	0.3
ACT ZTT CS MT/MX	5.0	4.4	12.0	5.5	1.8	8.0	4.0	2.0	1.5	1.6	10°	0.3	1.8	0.3
ACT ZTACV MT/MX	3.4	4.0	12.0	5.5	1.8	8.0	4.0	2.0	1.5	1.6	10°	0.3	1.3	0.3
ACT ZTTCV MT/MX	3.4	4.0	12.0	5.5	1.8	8.0	4.0	2.0	1.5	1.6	10°	0.3	1.3	0.3
ACT ZTACW MX	2.2	2.8	8.0	3.5	1.8	4.0	4.0	2.0	1.6	1.1	3°	0.3	1.3	0.2
ACT ZTTCW MX	2.2	2.8	8.0	3.5	1.8	4.0	4.0	2.0	1.6	1.1	3°	0.3	1.3	0.2



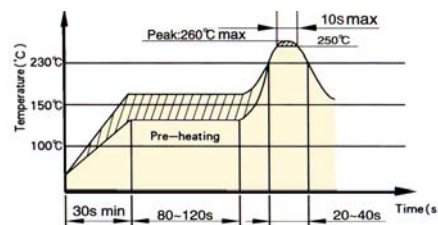
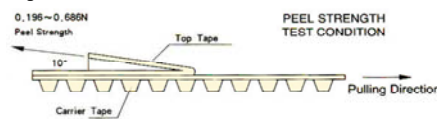
ØA	ØB	W	T	Pieces per reel	Carrier tape width
179 ±2	60 typ	8.4 min	14.0 max	3000 typ	8
179 ±2	60 typ	12.4 min	19.4 max	3000 typ	12
179 ±2	60 typ	12.4 min	19.4 max	1000 typ	12
179 ±2	60 typ	16.4 min	22.4 max	1000 typ	16
330 ±3	80 min	12.4 min	19.4 max	4000 typ	12
330 ±3	80 min	16.4 min	22.4 max	4000 typ	16



Leader tape



Tape peel strength



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