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|---------|----------------------|
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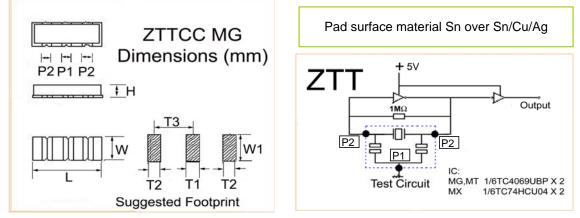


ACT ZTTCC SMD Resonators

The **ACT ZTTCC** 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 (%) | Internal Cap. (pF) C1 & C2 |
|----------------------|------------------------|---------------|-----|------------------------------------|---|-------------------------------|----------------------------------|
| ZTTCC MG | 1.8 ~ 2.4 2.4 ~ 8.0 | CD4069UBE x 2 | +5V | ±0.5 | ±0.3 | ±0.3 | 33/20 INTERNAL 22/20 INTERNAL |



| ZTTCC MG | L | w | н | P1 | P2 | T1 | T2 | Т3 | W1 |
|----------|------|------|------|------|------|------|------|------|------|
| | ±0.3 | ±0.3 | ±0.3 | ±0.3 | ±0.3 | ±0.3 | ±0.3 | ±0.3 | ±0.3 |
| ZTTCC MG | 7.4 | 3.4 | 1.8 | 1.2 | 1.2 | 1.5 | 1.7 | 2.5 | 4.0 |

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 evolvement and improvement, the above specification may be subject to change without notice

ISO9001:2000 Registered

For quotations or further information please contact us at:

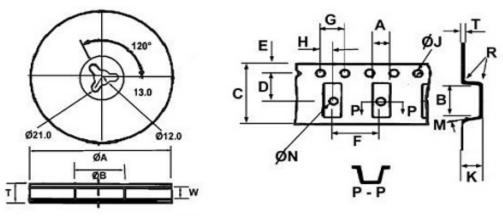
3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

http://www.actcrystals.com

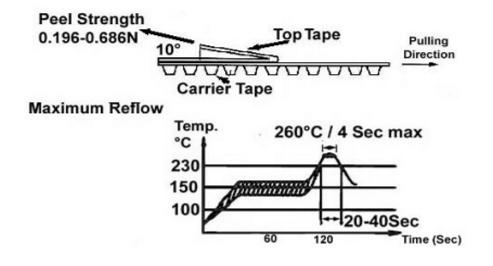
Issue : 9 C1r Date : 01/108/07



ACT ZTTCC SMD TAPE AND REEL / SOLDERING INFORMATION



| | 9 | ØA | | ØВ | | w | | Т | | Pieces / reel | | | Carrier Tape (mm) | | | |
|---------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|------------|----------|-------------------|-----------|-----------|--|
| CC | CC 330±3 | | | 80min | | 22.4min | | 22.4max | | 4000typ | | 16 | | | | |
| | | A ±0.2 | В ±0.2 | C ±0.3 | D ±0.1 | E ±0.1 | F ±0.1 | G ±0.1 | Н ±0.1 | JØ ±0.1 | NØ ±0.1 | M max | R max | K ±0.2 | T ±0.1 | |
| ZTACCMO | | | | | | | | | | | | 3° | | | | |



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