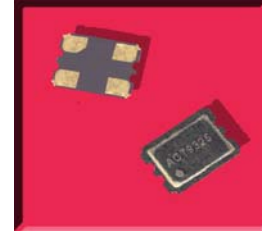


Compatible with Eu Directive  
 2002/EC - RoHS

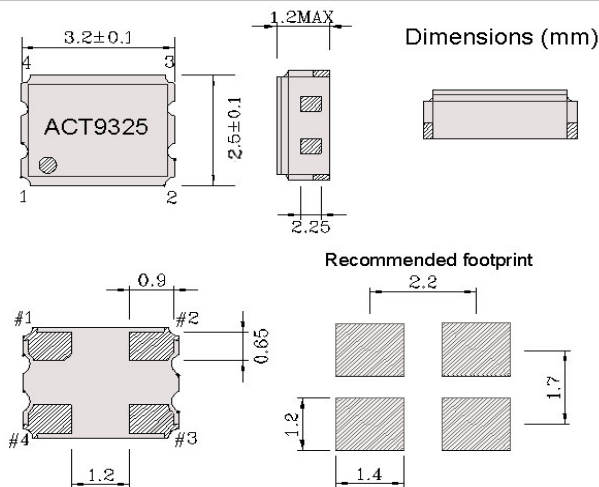
## ACT9325

The ACT9325 family is a miniature low profile Surface Mount package clock oscillator, housed in a ceramic package, with a seam welded metal lid for high reliability and long term stability. The metal lid is grounded via the package to assist with EMI emission control. This 3x2.5mm packaged device is available in 1.8 ~ 3.3 volt supply voltages and is suitable for a wide range of applications. Taped and reeled packaging and loose quantities are available for purchase, to suit high and low volume requirements. The pads are gold plated which enables a variety of assembly processes, including wire bonding.



## Specification

Parameter	Symbol	Specification		
Frequency Range		1.000 to 50.000MHz		
Frequency Stability	$\Delta f/f_0$	$\pm 20, \pm 25, \pm 50$ or $\pm 100$ ppm ( Inclusive of Operating Temperature Range, Supply Voltage & Load )		
Operating Temperature Range	$T_{opr}$	0 ~ +70°C & -40 ~ +85°C		
Storage Temperature Range	$T_{stg}$	-55 to +125°C		
Supply Voltage	$V_{DD}$	1.8V, 2.5V, 3.3V		
Output		HCMOS		
Duty Cycle	Tw/t	40/60% Std, ( Option 45/55% ) At 50% of Waveform (HCMOS Load)		
Supply Current (max) ( 1.000 to 50.000MHz )	$I_{DD}$	1.8VDC $\pm 10\%$ 10mA max	2.5VDC $\pm 10\%$ 15mA max	3.3VDC $\pm 10\%$ 25mA max
Output Level '0'	$V_{OL}$	10% $V_{DD}$ max (HCMOS)		
Output Level '1'	$V_{OH}$	90% $V_{DD}$ min (HCMOS)		
Rise & Fall Time (max)	$T_r/T_f$	10nS max		
Output Load	N/CL	15pF HCMOS Load ( Std )		
Start-up Time	Tosc	10mS max		
Tri-state Input Voltage		No Connection: Output enabled $V_{IH} : \geq 0.7 V_{DD}$ : Output enabled $V_{IL} : \leq 0.3 V_{DD}$ : Output disabled (High impedance)		
Aging	$F_a$	$\pm 5$ ppm / yr. max @25°C ( $\pm 3$ ppm available to custom order)		
Reflow Profile		10 sec @ 260°C max (refer to page 3 for profile)		
Period Jitter ( pk~pk )		100pS max		
Period Jitter (One sigma)		25pS max		



Pad finish: Au

### APPLICATIONS

- Microprocessor clock
- PDA/Notebook
- Wireless applications
- Ethernet
- Fibre channel
- Instrumentation

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

Customer to Specify : Frequency, Frequency Stability, Operating Temperature Range, Voltage, Duty Cycle

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, Berks, RG41 2EY, UK

<http://www.actcrystals.com>

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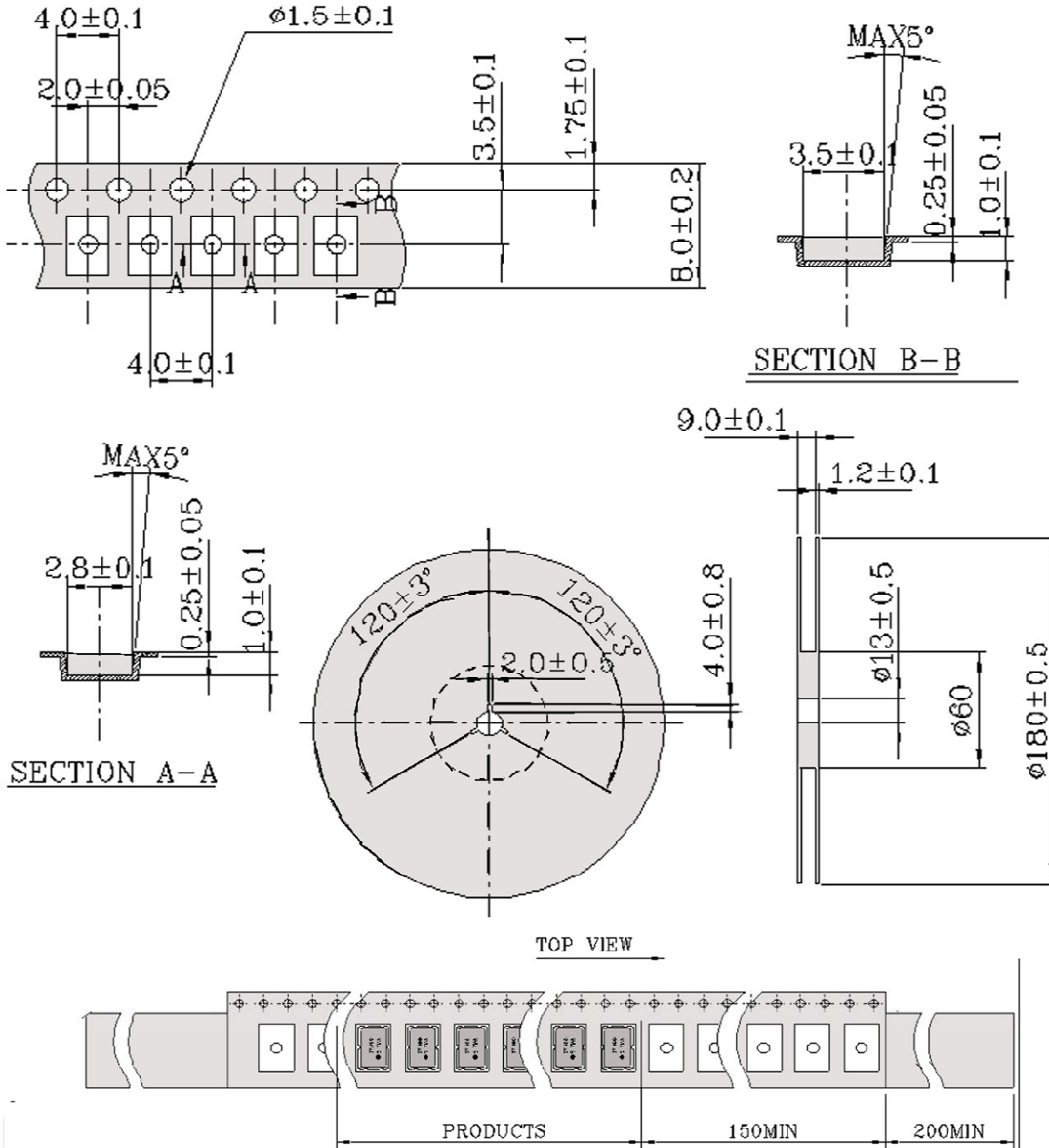
Date 29/10/07

ACT9325 continued

**Tape and Reel Dimensions (mm)**

1K pieces per reel

**Materials:**  
Tape: P.S. Black reference R-0.2  
Reel: P.S. White.  
Cover tape:  
13~14mm ( width ) x 0.06mm  
(Thickness).



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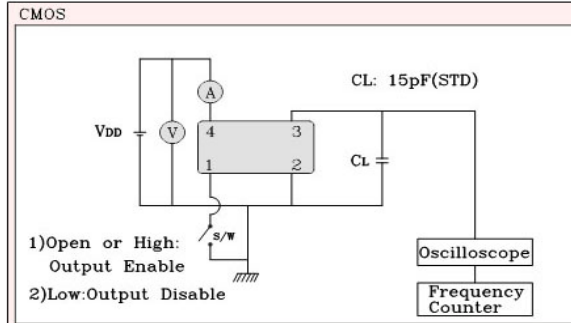
<http://www.actcrystals.com>

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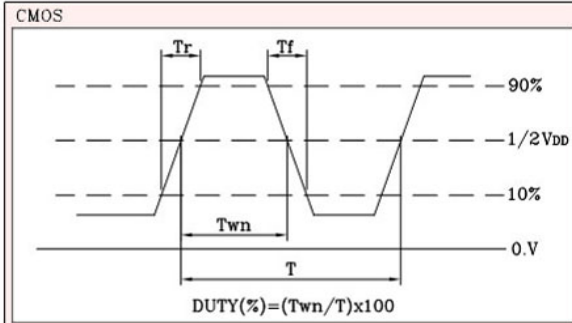
Date 29/10/07

## ACT9325 continued

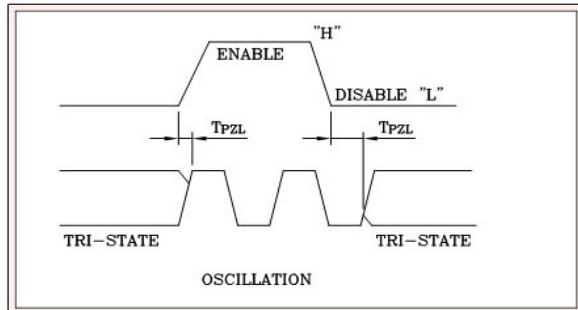
### Test circuits



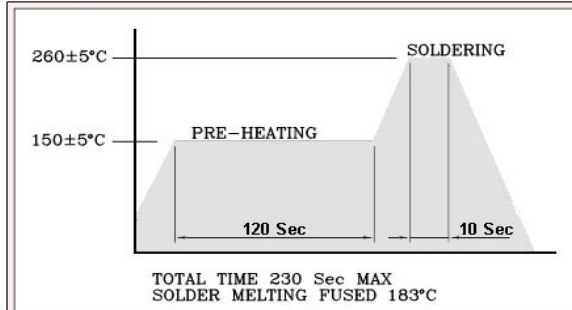
### Output



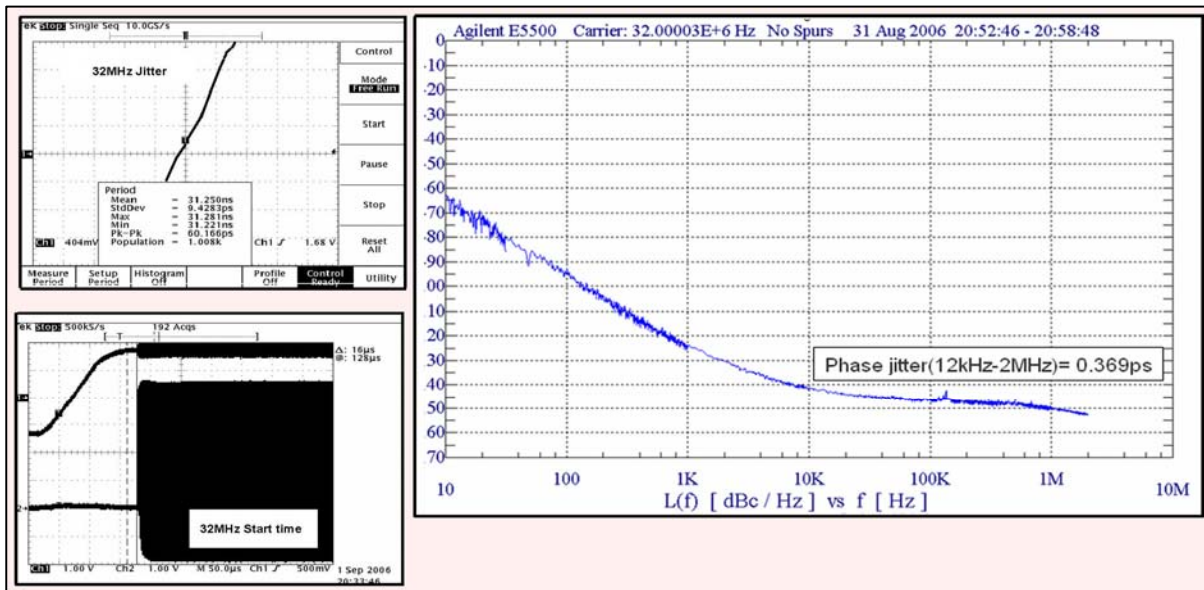
### Tri-state function



### Recommended max re-flow



## Typical test results for 32MHz device



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