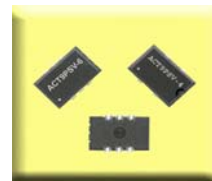


## ACT9PSV-4/6

The ACT9PSV-4/6 is a family of 4 & 6 pad miniature surface mount Voltage Controlled Crystal Oscillators (VCXO) housed in a 14 x 9.8 mm plastic package. Only 4.7mm high it is ideal for high density automatic assembly printed circuit boards. These devices can be tuned between  $\pm 50\text{ppm}$  &  $\pm 200\text{ppm}$  from the nominal frequency by varying the voltage on pin 1.

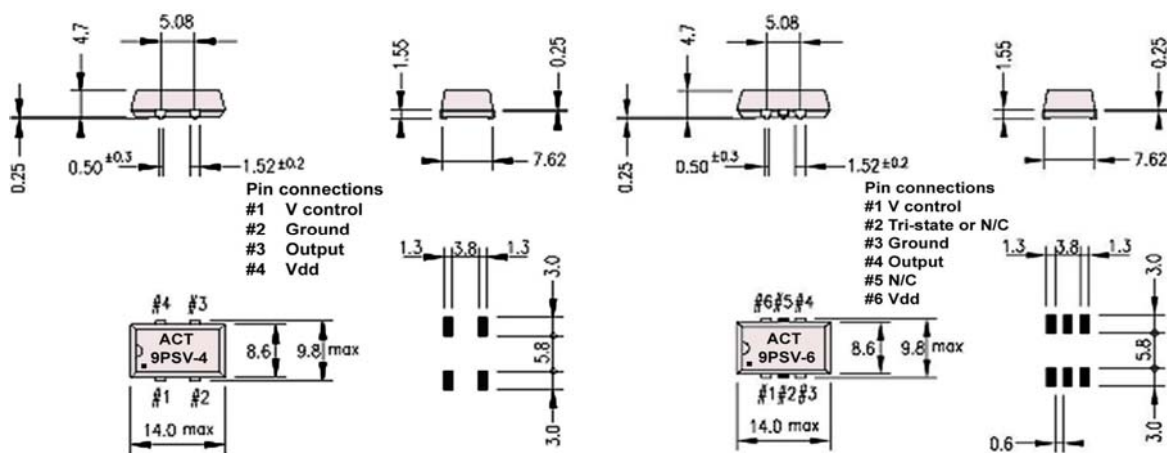
**Applications** include Networking, Telecomms, PLL circuits, Set Top Boxes, Audio/Video, Video Game Consoles and many more.....

Compatible with Eu Directive  
 2002/EC - RoHS



### Specification

| Parameter            | Symbol           | Specification                                                 |                                           | Condition      |
|----------------------|------------------|---------------------------------------------------------------|-------------------------------------------|----------------|
| Supply Voltage       | VDD              | 3.3V <sub>DC</sub> $\pm 5\%$                                  | 5.0V <sub>DC</sub> $\pm 5\%$ max          | Please specify |
| Frequency Range      | f <sub>0</sub>   | 1.5 ~ 180.0 MHz                                               | 1.5 ~ 52.0 MHz                            |                |
| Frequency Stability  | $\Delta f/f_0$   | $\pm 25\text{ppm} \sim 100\text{ppm}$                         |                                           | Please specify |
| Temp Operating Range | T <sub>opr</sub> | 0 to +70°C (std) & -40 ~ +85°C                                |                                           | Please specify |
| Storage Temp Range   | T <sub>stg</sub> | -55 to 125°C                                                  |                                           |                |
| Supply Current       | I <sub>op</sub>  | 60mA max                                                      |                                           |                |
| Duty Cycle           | Tw/t             | 40/60% (std) & 45/55%                                         |                                           | Please specify |
| Rise & Fall Time     | Tr/Tf            | 1.5 ~ 35.0 MHz                                                | 6nS max                                   |                |
|                      |                  | 36.0 ~ 70.0 MHz                                               | 5nS max                                   |                |
|                      |                  | 70.0 ~ 180 MHz                                                | 4nS max                                   |                |
| Output Logic         |                  | TTL / HCMOS                                                   |                                           |                |
| Output Load          | N/CL             | 10TTL / 15pF HCMOS                                            |                                           |                |
| Output Voltage       | VOL              | 0.4V <sub>DC</sub> min (TTL), 10% V <sub>DD</sub> min (HCMOS) |                                           |                |
|                      | VOH              | 2.4V <sub>DC</sub> min (TTL), 90% V <sub>DD</sub> min (HCMOS) |                                           |                |
| Voltage Control      | V <sub>c</sub>   | 1.65V <sub>DC</sub> $\pm 1.65\text{V}$                        | 2.5V <sub>DC</sub> $\pm 2.0\text{V}$      |                |
| Slope                |                  | Positive                                                      |                                           |                |
| Linearity            |                  | 10% standard 5% option                                        |                                           | Please specify |
| Pulling Range        | $\Delta f_c$     | $\pm 50 \sim \pm 200\text{ppm}$                               | $\pm 50\text{ppm} \sim \pm 125\text{ppm}$ |                |
| Start Up Time        | T <sub>osc</sub> | 10mS max                                                      |                                           |                |
| Aging                | F <sub>a</sub>   | $\pm 5\text{ppm} / \text{year max @} 25^\circ\text{C}$        |                                           |                |



Pad surface material Ag  
 10-30um

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

Customer to specify : Frequency, Frequency Tolerance, Operating Temperature Range, Supply Voltage, Pulling Range, linearity & Symmetry

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:

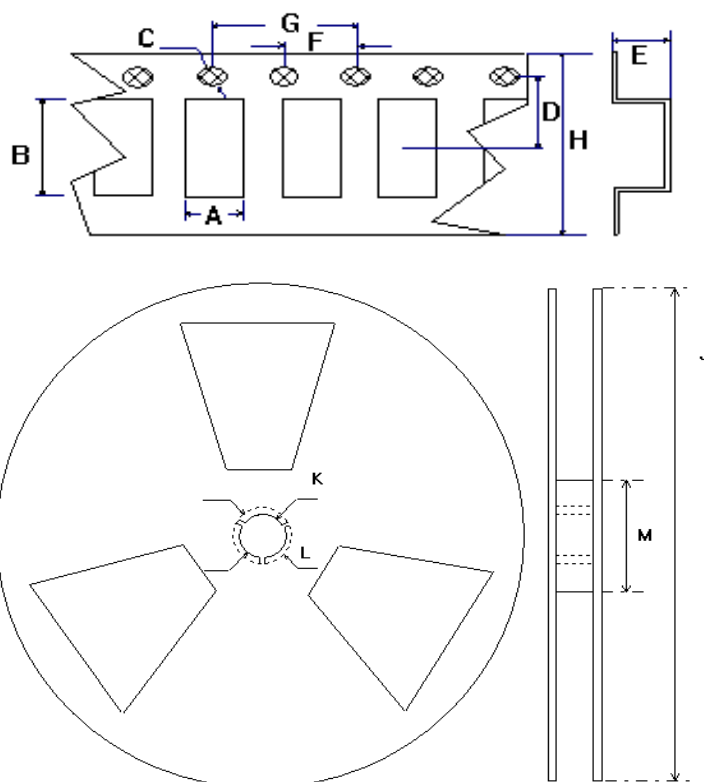
3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

<http://www.actcrystals.com>

Issue: 5 D2

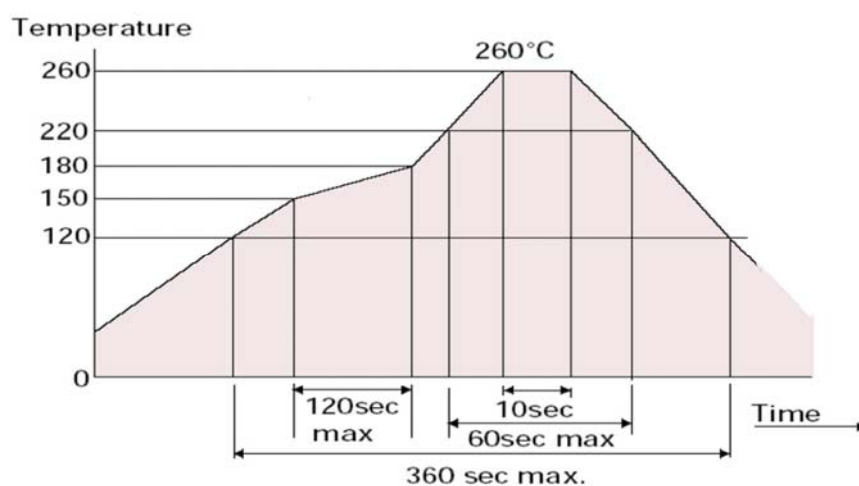
Date: 15/11/05

**ACT9PSV-4/6 TAPE AND REEL DIMENSIONS (mm)**  
STANDARD REEL SIZE 1000PCS



|         | A  | B    | C   | D    | E   | F   | G   | H    | J   | K  | L  | M  |
|---------|----|------|-----|------|-----|-----|-----|------|-----|----|----|----|
| ACT9PSV | 10 | 14.2 | 1.5 | 11.5 | 5.5 | 4.0 | 8.0 | 24.0 | 330 | 13 | 23 | 80 |

**Maximum re-flow profile**



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