

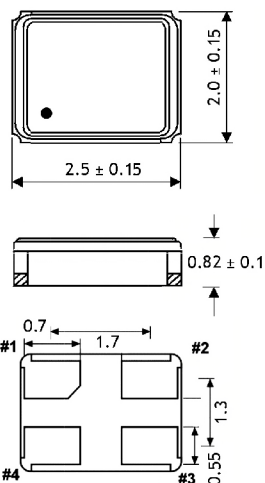


## Clock Oscillator SMD-version

+1.8 / +2.5 / +3.0 / +3.3V

|  |  |                          |                          |
|--|--|--------------------------|--------------------------|
| Part no.   | 12.xxxxx   |                          |                          |
| model  | KXO-V95  |                          |                          |
| frequency range  | 1.0 ~ 70.0 MHz   |                          |                          |
| frequency stability<br>at -20 ~ + 70°C<br>at -40 ~ + 85°C<br>at -40 ~ +105°C | ± 50 ppm<br>±100 ppm<br>±120 ppm                                   |                          |                          |
| operating temperature  | standard   | -20 ~ + 70°C             |                          |
|  | available  | -40 ~ + 85°C (=KXO-V95T) |                          |
|  | available  | -40 ~ +105°C (=KXO-V95E) |                          |
| storage temperature  | -40° ~ +85°C   |                          |                          |
| symmetry   | 40% ~ 60% at ½ V <sub>DD</sub> level                               |                          |                          |
| rise & fall time max.  | 10 ns (10% V <sub>DD</sub> ~ 90% V <sub>DD</sub> level)            |                          |                          |
| "0" level max.   | VOL: 10% V <sub>DD</sub>   |                          |                          |
| "1" level min.   | VOH: 90% V <sub>DD</sub>   |                          |                          |
| input voltage V <sub>DD</sub>  | +1.8V DC ±5%, +2.5V DC ±5%, +3.0V DC ±5% or +3.3V DC ±5%           |                          |                          |
| tri-state control voltage<br>(Pin#1)   | VIH: V <sub>DD</sub> x 0.7 min.<br>VIL: V <sub>DD</sub> x 0.3 max. |                          |                          |
| supply voltage   | -0.5V ~ +7.0V  |                          |                          |
| input current  |  | +1.8V                    | +2.5V                    |
|  |  | +3.0V/+3.3V              |                          |
|  | 1.0 ~ 20.0MHz  | 3.5 mA typ., 6.0mA max.  | 4.0 mA typ., 6.0 mA max. |
|  | 20.1 ~ 50.0MHz   | 4.5 mA typ., 6.0 mA max. | 4.0 mA typ. 11.0 mA max. |
|  | 50.1 ~ 70.0MHz   | 6.0 mA typ. 11.0 mA max. | 6.0 mA typ 11.0 mA max.  |
| output load max.   | 15pF (HCMOS)   |                          |                          |
| start up time max.   | 10 ms  |                          |                          |
| disable delay time max.  | 150 ns   |                          |                          |
| enable delay time max.   | 10 ms  |                          |                          |
| stand by current max.  | 50 µA (Pin #1=VIL)   |                          |                          |
| jitter   | deterministic jitter   | 5ps max.                 | norm 1-sigma 7ps max.    |
|  | random jitter  | 7ps max.                 | peak to peak 40ps max.   |
| contents of reel   | 1000 pcs. / 3000 pcs.  |                          |                          |

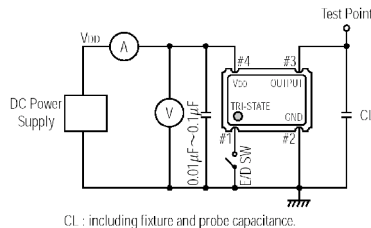
### Dimensions (mm):



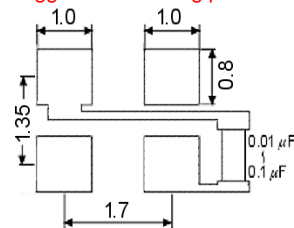
| PIN | CONNECTION      |
|-----|-----------------|
| 1   | "L" OPEN or "H" |
| 2   | GND             |
| 3   | Z OUTPUT        |
| 4   | V <sub>DD</sub> |

Z: high impedance

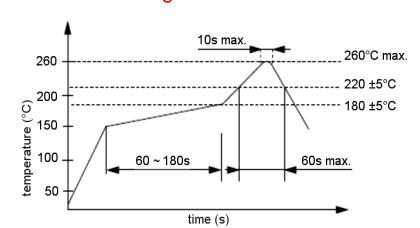
### Test circuit:



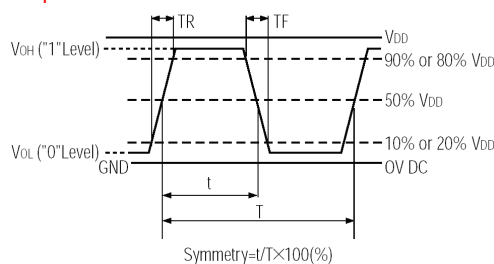
### Suggested soldering pad:



### Reflow soldering condition:



### Output waveform:



### Tape specification:

