

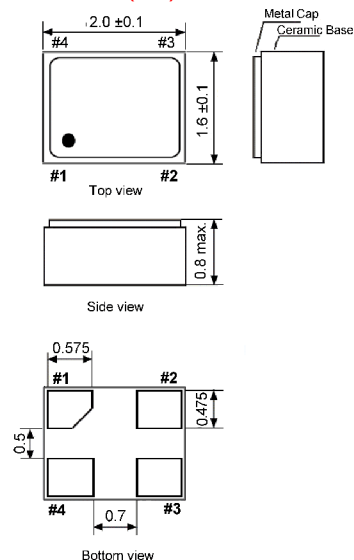


## Clock Oscillator SMD-version

+3.3 V

|                                    |                                                                                              |
|------------------------------------|----------------------------------------------------------------------------------------------|
| part no.                           | 12.90347                                                                                     |
| model                              | KXO-V94T                                                                                     |
| frequency                          | 32.768 kHz                                                                                   |
| frequency stability<br>-40 ~ +85°C | ±50 ppm                                                                                      |
| operating temperature              | -40 ~ +85°C                                                                                  |
| storage temperature                | -40 ~ +125°C                                                                                 |
| symmetry                           | 45 % ~ 55 % at 50 % V <sub>DD</sub> level                                                    |
| rise & fall time max.              | 200 ns (10 % V <sub>DD</sub> ~ 90 % V <sub>DD</sub> level)                                   |
| "0" level max.                     | V <sub>OL</sub> : 10 % V <sub>DD</sub>                                                       |
| "1" level min.                     | V <sub>OH</sub> : 90 % V <sub>DD</sub>                                                       |
| supply voltage V <sub>DD</sub>     | +3.3 V ±5 %                                                                                  |
| tri-state control voltage (Pin#1)  | V <sub>IH</sub> : V <sub>DD</sub> x 0.7 min.<br>V <sub>IL</sub> : V <sub>DD</sub> x 0.3 max. |
| supply voltage                     | +3.3 V                                                                                       |
| supply current max.                | 240 µA                                                                                       |
| output load max.                   | 15 pF (HCMOS)                                                                                |
| start up time max.                 | 10 ms                                                                                        |
| disable delay time max.            | 200 ns                                                                                       |
| enable delay time max.             | 10 ms                                                                                        |
| stand by current max.              | 50 µA (Pin #1 = V <sub>IL</sub> )                                                            |
| Jitter max.                        | deterministic jitter 5 ps<br>random jitter 7 ps<br>norm 1-sigma 7 ps<br>peak to peak 40 ps   |
| contents of reel                   | 1000 pcs.                                                                                    |

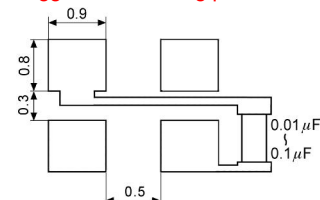
### Dimensions (mm):



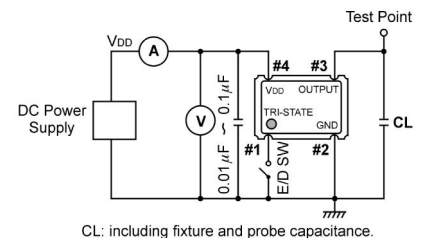
| PIN | Connection           |
|-----|----------------------|
| 1   | "L" (0V) "H" or OPEN |
| 2   | GND                  |
| 3   | Z OUTPUT             |
| 4   | V <sub>DD</sub>      |

Z: high impedance

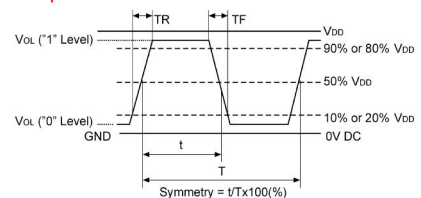
### Suggested soldering pad:



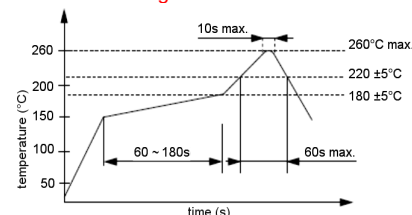
### Test circuit:



### Output Waveform:



### Reflow soldering condition:



### Tape specification:

