Issued Date : 4, Mar, 2011 Issued No. : K1104-11098-581

Messrs : Digi-Key

**RoHS Compliant** 

**Temperature Compensated Crystal Oscillator** 

# (TCXO)

## KT2520F38400ZAW18TEK

Technical Specification

**KYOCERA KINSEKI Corporation** 

| <b>Revision History</b> |                  |                             |                |                |  |  |  |  |  |
|-------------------------|------------------|-----------------------------|----------------|----------------|--|--|--|--|--|
| Revision<br>No.         | Revision<br>Date | Revision Content and reason | Prepared<br>By | Approved<br>By |  |  |  |  |  |
| 1                       | 4.Mar.2011       | The first edition.          | K.ONO          | N.NAKANO       |  |  |  |  |  |
|                         |                  |                             |                |                |  |  |  |  |  |
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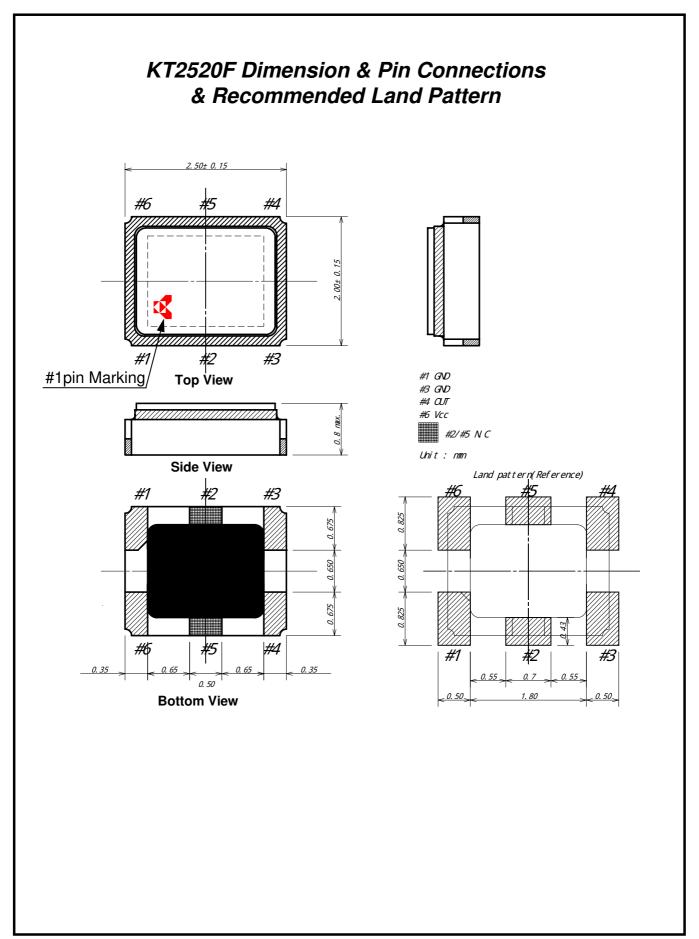
## KT2520F Parts Number KT2520F38400<u>ZAW18T</u>EK

- Z : Freq. Stability VS Temp Special specification\_
- A : Bottom Temperature Limit -40 deg.C
- W : Upper Temperature Limit +85 deg.C
- 18 : Power Supply Voltage 1.8V
- T : Specification Number

### **KT2520F Electrical Characteristics**

Ta= -40deg.C to +85deg.C, Vcc=1.8V, Load 10kohm//10pF

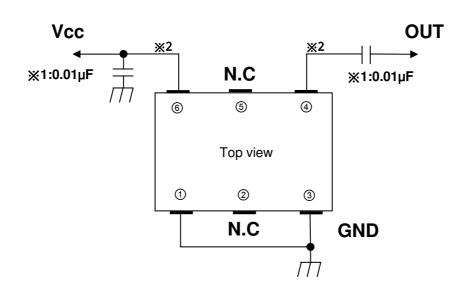
| Symbol | ltem                  | Condition                                 | Specification | Unit  | Remarks         |
|--------|-----------------------|---|---------------|-------|-----------------|
| Vcc    | Power Supply Voltage  |   | 1.8+/-0.1     | V     |                 |
| F0     | Nominal Frequency     |   | 38.400000     | MHz   |                 |
| Topr   | Operating Temperature |   | -40 to +85    | deg.C |                 |
| Tstg   | Storage Temperature   |   | -40 to +85    | deg.C |                 |
| Vout   | Output Voltage        |   | 0.8(min)      | Vp-p  |                 |
| lcc    | Power Supply Current  |   | 2.0(max)      | mA    |                 |
| fO     | Frequency Tolerance   | Preset Frequency and after 2 times reflow | +/-2.0(max)   | ppm   | Ta=25+/-2deg.C  |
| df/F   | Frequency Stability   | vsTemp-30to+85deg.C                       | +/-0.5(max)   | ppm   | ref.:Ta=25deg.C |
|        |                       | vsTemp-40to-30deg.C                       | +/-4.0(max)   | ppm   | ref.:Ta=25deg.C |
|        |                       | vs Load 10pF+/-10%<br>10Kohm+/-10%        | +/-0.2(max)   | ppm   |                 |
|        |                       | vs Voltage 1.8V+/-0.1V                    | +/-0.2(max)   | ppm   |                 |
| dfag   | Frequency Aging Rate  | Ta=25+/-2deg.C                            | +/-1.0(max)   | ppm/Y | One Year        |
|        | Harmonics             |   | -8.0(max)     | dBc   |                 |



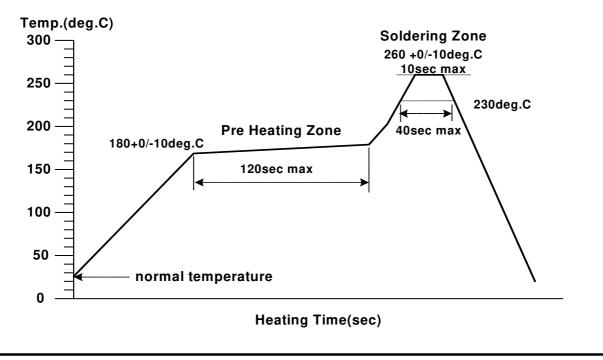
#### KT2520F Recommended Circuit

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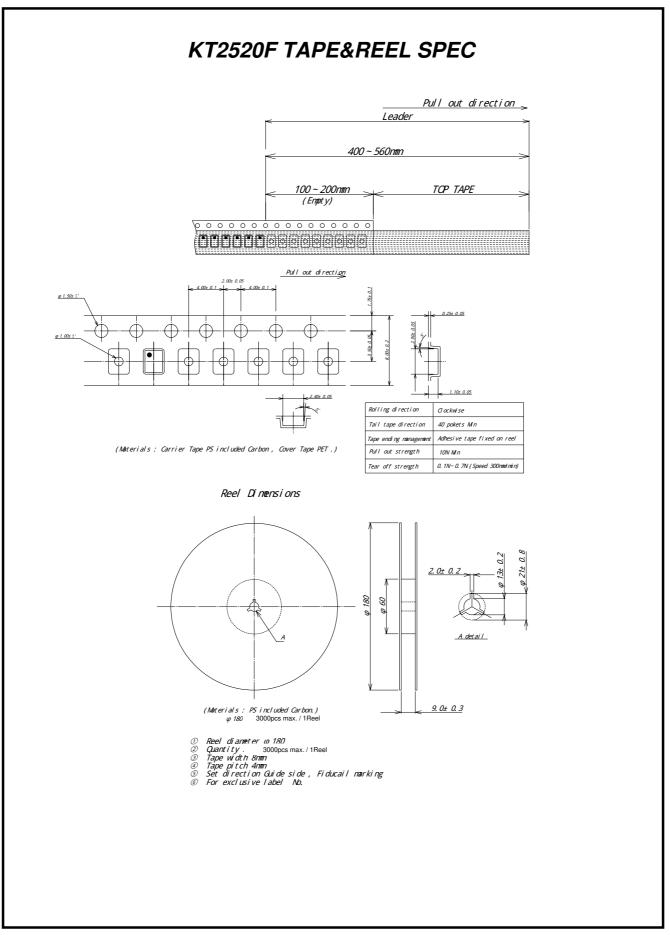
<u>Bypass Capacitor and DC-Blocking Capacitor</u> do not build in this Parts. So, Bypass Capacitor and DC-Blocking Capacitor are attached outside and please use it. <u>And these Capacitor should be</u> **\*2** <u>placed as close as possible to the pin(No.4 and No.6).</u>



KT2520F Recommended Reflow Soldering Condition (Lead Free Version)



**KYOCERA KINSEKI** 



### KT2520F Notice

- 1. Please use soldering iron and the spot heater within the range of a solder heat test condition.
- 2. Units should be stored in a dry environment keeping away from the sun.
- Don't leave units in high-Temperature and high-humidity environment due to terminal solderability.
  (Please keep 0°C ~ 40°C and 30% ~ 70%RH for recommendable storage condition)
- 4. The term of a guarantee of taping packing is 6 months. (0 deg.C to 40 deg.C,RH30% to 70%)
- 5. Disapprove of washing.
- 6. Unless we receive request for modification within 1 month from the issue date of this KKC specification sheet, we will supply products according to this specification. Also, if you'd like to modify specification of order, which has been placed with delivery within 1 month from the issue data of this specification sheet, we would like to discuss with you separately.
- 7. If you intend to use products listed on this specification for applications that may result in loss of life or assets (controls relating to safety, medical equipment, aeronautical equipment, space equipment, etc.), please do not fail to advise us of your intention beforehand.
- 8. In no event shall the company be liable for any product failure resulting from an inappropriate.Handling or operation of the product beyond the scope of its guarantee.
- 9. Information contained in this specification must not be quoted, reproduced or used for other purposes including processing either in part or in full without obtaining prior approval from the company.
- 10. Moisture sensitivity level MSL=1