

ISSUE 2; December 2018

### Description

- Surface mount Temperature Compensated Crystal Oscillator (TCXO) in a miniature 1.6 x 1.2mm surface mount package.

### Frequency Parameters

- Frequency 26.0MHz, 52.0MHz
- Frequency Tolerance  $\pm 1.50\text{ppm}$
- Tolerance Condition @ 25°C  $\pm 2^\circ\text{C}$
- Frequency Stability  $\pm 0.50\text{ppm}$  to  $\pm 1.50\text{ppm}$
- Ageing  $\pm 1\text{ppm}$  max per year @ 25°C  $\pm 3^\circ\text{C}$
- Developed Frequencies: 26.0MHz and 52.0MHz
- Supply Voltage Variation ( $\pm 5\%$  change @ 25°C):  $\pm 0.1\text{ppm}$  max
- Load Variation ( $\pm 10\%$  change @ 25°C):  $\pm 0.1\text{ppm}$  max
- IR Reflow Resistance (referred to frequency before reflow):  $\pm 1\text{ppm}$  max

### Electrical Parameters

- Supply Voltage 1.8V  $\pm 5\%$
- Absolute Maximum Supply Voltage: -0.6V to 4.6V

### Operating Temperature Ranges

- 30 to 85°C
- 40 to 85°C

### Output Details

- Output Compatibility Clipped Sine
- Drive Capability 10k $\Omega$ /10pF
- Output Voltage Level: 0.8V pk-pk min
- Output: DC coupled
- Start Up Time ( $V_{out} \geq 90\%V_{pk-pk}$ ): 2ms max

### Noise Parameters

- Harmonic distortion: -5.0dBc max
- Phase Noise @ 25°C: -135dBc/Hz @ 1kHz typ

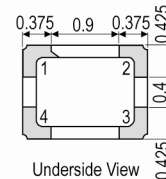
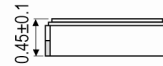
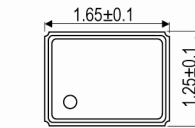
### Environmental Parameters

- Storage Temperature Range: -40 to 85°C

### Manufacturing Details

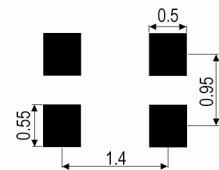
- Reflow Process  
Preheating: 170°C  $\pm 10^\circ\text{C}$  for 1 to 2 minutes.  
Maximum reflow: 250°C  $\pm 10^\circ\text{C}$  for 10secs.
- A DC-cut capacitor is not built in to the oscillator; a 1000pF DC-cut capacitor is therefore required in the output line.
- RoHS Terminations AuNi
- RoHS Reflow Maximum reflow: 250°C  $\pm 10^\circ\text{C}$  for 10secs.

### Outline (mm)



- Pad Connections
1. GND
  2. GND
  3. Output
  4. +Vs

### Solder Pad Layout



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**Ordering Information**

- \*Minimum information required  
 Frequency\*  
 Model\*  
 Supply Voltage  
 Frequency Stability\*  
 Operating Temperature Range\*
- Example:  
 26.0MHz IQXT-350  
 ±0.5ppm -30 to 85C 1.8V

**Compliance**

- RoHS Status (2011/65/EU)      Compliant
- REACH Status                      Compliant
- MSL Rating (JDEC-STD-033):    Not Applicable

**Packaging Details**

- Pack Style: Cutt      Cut tape  
 Pack Size: 100
- Pack Style: Reel      Tape and reel in accordance with  
 Pack Size: 3,000      EIA-481-D

**Electrical Specification - maximum limiting values 1.80V ±5%**

Frequency	Temperature Range	Stability	Current Draw	Rise and Fall Time	Duty Cycle
	°C	ppm	mA	ns	%
26.0MHz	-40 to 85	±1.50	1.5	-	-
	-30 to 85	±0.50	1.5	-	-
52.0MHz	-40 to 85	±1.50	2	-	-
	-30 to 85	±0.50	2	-	-

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