

ISSUE 1; January 2016

Description

- The SQXO-2 crystal oscillator consists of a TTL and CMOS-compatible hybrid circuit and a miniature quartz crystal packaged in a hermetically sealed 3-pin TO-39 package
- Please note that all data is only valid at 25°C unless otherwise stated.

Frequency Parameters

- Frequency 10.0kHz to 2.0MHz
- Frequency Tolerance ±100.00ppm to ±1,000.00ppm @ 25°C
- Tolerance Condition @ 25°C
- Ageing ±10ppm max in 1st year @ 25°C
- Frequency Stability Coefficient (k): -0.035ppm/°C²

Electrical Parameters

- Supply Voltage 5.0V ±10%
- Absolute Maximum Supply Voltage: -0.5V to 7.0V

Operating Temperature Ranges

- -10 to 70°C
- -40 to 85°C
- -55 to 125°C

Output Details

- Output Compatibility CMOS
- Drive Capability 15pF

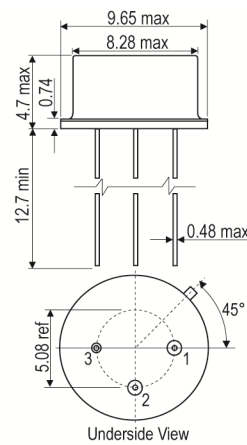
Environmental Parameters

- Shock: Above 600kHz, 750G, 0.3ms, 1/2 sine
Below 600kHz, 1000G, 0.3ms, 1/2 sine
- Vibration: 10G rms, 10-2000Hz, random
- Storage Temperature Range: -55 to 125°C

Manufacturing Details

- FEATURES: CMOS and TTL compatible
Low power
Low EMI emission
Wide temperature range
Full military testing available
Hermetically sealed
- APPLICATIONS: Industrial, Computer & Communications - General purpose clock oscillator
MWD (measurement while drilling)
Military & Aerospace - Airborne hybrid computer
Flight recorder
- Maximum Process Temperature: 260°C for 10sec

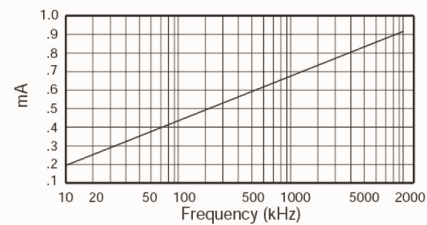
Outline (mm)



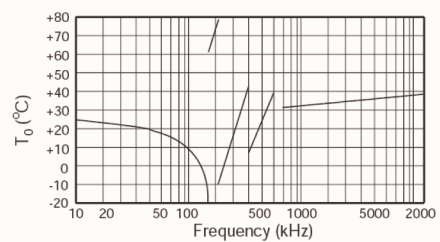
- Pin Connections
1. +V_S
 2. Output
 3. GND



Typical Supply Current (mA) @ 5V



Typical Turning Point Temperature (T₀)



Note: Frequency (f) deviation from frequency (f₀) @ turning point temperature (T₀): $\frac{f-f_0}{f_0} = k(T-T_0)^2$

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Ordering Information

- Frequency*
Model*
Frequency Tolerance*
Operating Temperature Range*
Supply Voltage
(*minimum required)
- Example
1.0MHz SQXO-2
CMOS ±100ppm -10 to 70C 5V

Compliance

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

Packaging Details

- Pack Style: Tray Supplied on a tray
Pack Size: 1
- Pack Style: Bulk Loose in bulk pack
Pack Size: 1

Electrical Specification - maximum limiting values 5.0V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
10.00kHz	2.0MHz	-10 to 70	-	-	200	40/60%
		-40 to 85	-	-	200	40/60%
		-55 to 125	-	-	200	40/60%

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