

ISSUE 1; April 2016

Description

- Hermetically sealed high shock, low current clock oscillator Available in tight frequency tolerances, consist of a Statek miniature quartz crystal and a CMOS/TTL compatible hybrid circuit in a ceramic package
- Each crystal used in the LSCHG oscillator is pre-qualified before assembly through electrical tests and characterization over temperature
- SM1 Gold Plated (RoHS)
- SM5 Solder Dipped (RoHS)
- Please note that all data is only valid at 25°C unless otherwise stated.

Frequency Parameters

- Frequency 100.0kHz
- Frequency Tolerance $\pm 100.00\text{ppm}$
- Ageing $\pm 3\text{ppm max per year}$
- Supply Voltage Variation: $\pm 3\text{ppm/V max}$
- Load Variation (ref $\pm 10\%$ change): $\pm 1\text{ppm max}$

Electrical Parameters

- Supply Voltage 5.0V $\pm 10\%$
- Absolute Maximum Supply Voltage Range: -0.5V to 7V

Operating Temperature Ranges

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

Output Details

- Output Compatability CMOS
- Drive Capability 15pF//10M Ω
- Output Levels:
VoH 4.8V min
VoL 0.2V max

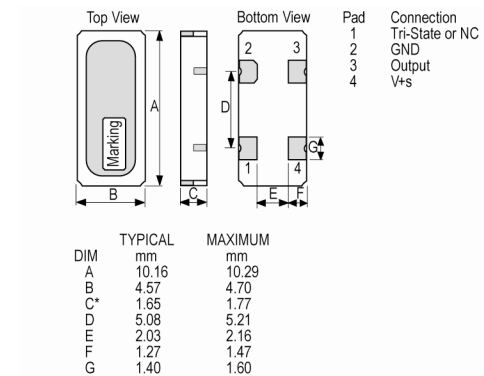
Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: Up to 50,000G peak, 1ms, 1/2 sine
- Vibration: 10G RMS, 10-2000Hz

Manufacturing Details

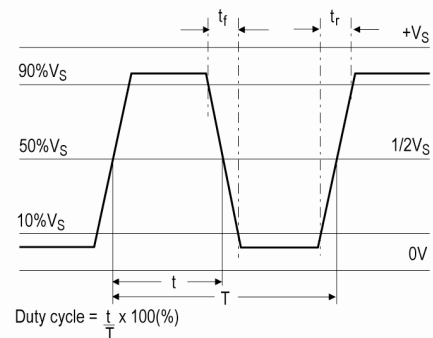
- Process Temperature: 260°C for 20sec max

Outline (mm) SM1 = Gold Plated (RoHS)

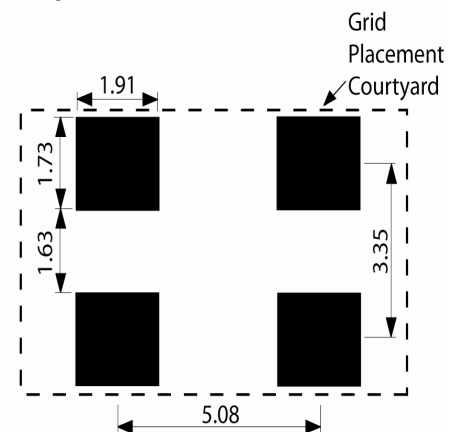


Termination material is Au over Ni (SM1), solder dip (SM3 & SM5) also available.
*SM1 Termination; SM3, SM5 = 1.91mm max.

Wave Form



Solder Pad Layout



Sales Office Contact Details:

UK: +44 (0)1460 270200
Germany: 0800 1808 443

France: 0800 901 383
USA: +1.760.318.2824

Email: info@iqdfrequencyproducts.com
Web: www.iqdfrequencyproducts.com

Ordering Information

- Frequency
Model*
Supply Voltage
Termination Variant*
Pad 1 Function*
Frequency Tolerance
Operating Temperature Range*
- Terminations:
SM1 - Gold (RoHS)
SM3 - Solder Dipped (non RoHS)
SM5 - Solder Dipped (RoHS)
- Example:
100.0kHz LSCHG-5-SM1
TS 100 -10 to 70C

Compliance

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

Packaging Details

- Pack Style: Tray Tray pack
Pack Size: 100
- Pack Style: Reel Tape & reel in accordance with EIA-481-D
Pack Size: 1,000

Electrical Specification - maximum limiting values 5.00V ±10%

Frequency	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
	°C	ppm	mA	ns	%
100.0kHz	-55 to 125	±0.00	0.015	25	40/60%
	-40 to 85	±0.00	0.015	25	40/60%
	-10 to 70	±0.00	0.015	25	40/60%

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