

ISSUE 3; July 2019

Description

- Ceramic package with a hermetically seam sealed metal lid suitable for automotive applications. Qualified to AEC-Q200 and with IATF-16949:2016 release. Not suitable for safety critical applications.
- -A 2 pad
- -B 4 pad

Frequency Parameters

- Frequency 6.0MHz to 125.0MHz
- Frequency Tolerance $\pm 10.00\text{ppm}$ to $\pm 50.00\text{ppm}$
- Tolerance Condition @ 25°C
- Frequency Stability $\pm 50.00\text{ppm}$ to $\pm 150.00\text{ppm}$
- Ageing $\pm 5\text{ppm}$ max per year @ 25°C

Electrical Parameters

- Load Capacitance (CL) 8.0pF to 75.0pF
- Shunt Capacitance (C0) 7pF max
- Drive Level 50 μ W typical

Operating Temperature Ranges

- -40 to 85°C
- -40 to 125°C

Environmental Parameters

- Storage Temperature Range: -45°C to Max Operating Temperature+5°C
- Qualified to AEC-Q200

Manufacturing Details

- Maximum Process Temperature: 260°C (10secs max)
- RoHS Terminations NiAu
- RoHS Reflow 260°C max for 10secs max

Ordering Information

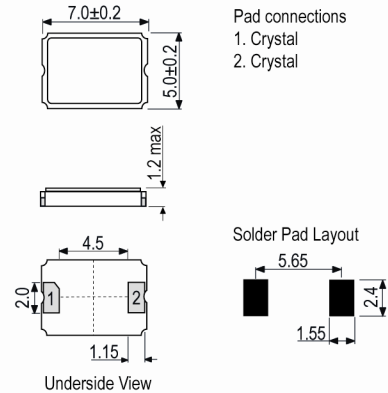
- Frequency*
- Model*
- Variant*
- Frequency Tolerance (@ 25°C)*
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Load Capacitance*
- Overtone
- (*minimum required)
- Example
10.0MHz 12SMX AUTO - B
50/100/-40 to 125C/8 FUND

Compliance

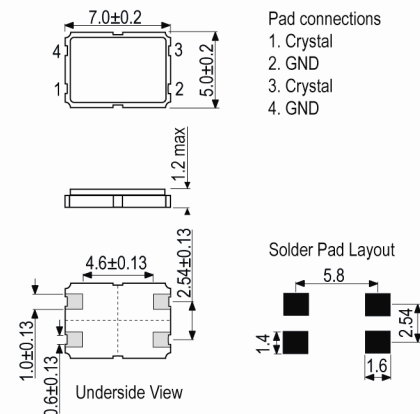
- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



Outline (mm) -A = 2 pad



Outline (mm) -B = 4 pad



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

Packaging Details

- Pack Style: Cutt On tape cut from a reel
Pack Size: 100
- Pack Style: Reel Tape & reel in accordance with EIA-481-D
Pack Size: 1,000

Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
6.0MHz	8.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	150
8.000001MHz	9.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	100
9.000001MHz	10.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	60
10.000001MHz	11.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	50
11.000001MHz	13.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	40
13.000001MHz	50.0MHz	-40 to 85 -40 to 125	±50 ±100	Fundamental	30
26.0MHz	125.0MHz	-40 to 85 -40 to 125	±50 ±100	3rd Overtone	100

*Stability Maximum values ±150ppm

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