

ISSUE 3; January 2017

### Description

- Ceramic package with a hermetically seam sealed metal lid suitable for automotive applications. Qualified to AEC-Q200 and with TS16949 release.
- -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 $\mu$ 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)

### Ordering Information

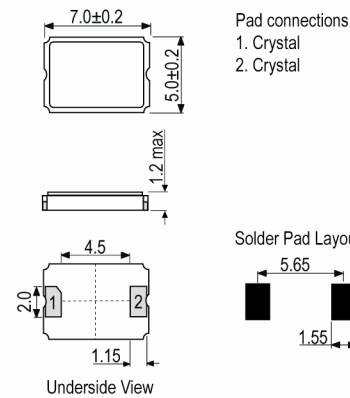
- Frequency\*
- Model\*
- Variant\*
- Frequency Tolerance (@ 25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone
- (\*minimum required)
- Example
- 10.0MHz 12SMX AUTO - B
- 50/100/-40 to 125C/8 FUND

### Compliance

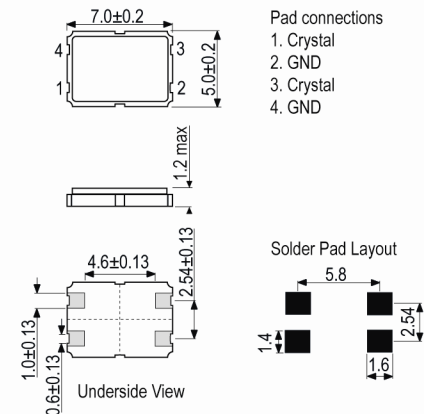
- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JEDEC-STD-033): Not Applicable



### Outline (mm) -A = 2 pad



### Outline (mm) -B = 4 pad



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### Packaging Details

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

### 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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