

ISSUE 9; July 2016

Description

- 12 x 5mm SMD crystal
Ceramic package with a resin sealed ceramic lid, hermetically sealed.

Frequency Parameters

- Frequency: 3.2MHz to 70.0MHz
- Frequency Tolerance: $\pm 20.00\text{ppm}$ to $\pm 50.00\text{ppm}$
- Frequency Stability: $\pm 15.00\text{ppm}$ to $\pm 50.00\text{ppm}$
- Ageing: $\pm 5\text{ppm}$ max per year at 25°C

Electrical Parameters

- Load Capacitance (CL): 16.0pF to 32.0pF
- Shunt Capacitance (C0): 7pF max
- Drive Level: 100µW max

Operating Temperature Ranges

- 10 to 60°C
- 20 to 70°C
- 40 to 85°C

Environmental Parameters

- Shock: MIL-STD-202F, Method 213B: 1000G, 0.5ms, 1/2 sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20G (10Hz-2000Hz), 4hrs in 3 mutually perpendicular planes (total 12hrs)
- Storage Temperature Range: -55°C to 125°C

Ordering Information

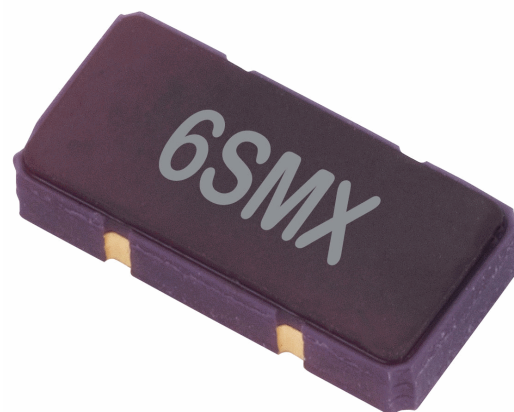
- Frequency*
- Model*
- Frequency Tolerance (@25°C)*
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Load Capacitance*
- Overtone*
- Example
10.0MHz 6SMX
50/50/-20 to 70C/16 FUND

Compliance

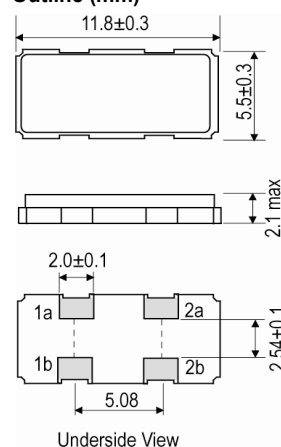
- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

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

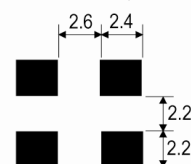


Outline (mm)



Pad Connections
1a & 1b. Crystal
2a & 2b. Crystal

Solder Pad Layout



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Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
3.2MHz	3.499999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	200
3.5MHz	3.999999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	140
4.0MHz	4.399999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	120
4.4MHz	4.899999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	100
4.9MHz	5.999999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	80
6.0MHz	6.999999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	60
7.0MHz	7.999999MHz	-10 to 60 -20 to 70 -40 to 85	±30 ±30 ±30	Fundamental	50
8.0MHz	10.999999MHz	-10 to 60 -20 to 70 -40 to 85	±20 ±20 ±30	Fundamental	45
11.0MHz	11.999999MHz	-10 to 60 -20 to 70 -40 to 85	±15 ±15 ±30	Fundamental	40
12.0MHz	14.999999MHz	-10 to 60 -20 to 70 -40 to 85	±15 ±15 ±30	Fundamental	35
15.0MHz	26.999999MHz	-10 to 60 -20 to 70 -40 to 85	±15 ±15 ±30	Fundamental	30
27.0MHz	70.0MHz	-10 to 60 -20 to 70 -40 to 85	±15 ±15 ±30	3rd Overtone	100

*Stability Maximum values ±50ppm

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