



ShaanXi DongXin HengKe Electronics Co., LTD

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SMD QUARTZ CRYSTAL RESONATOR SMD X'TAL 11.5×4.8×3.8 (3.0) mm

Applications

Digital Electronics
Consumer Products
Bluetooth
Wireless LAN and Automotive

Features

Dimensions:49SMD:11.5 x 4.80 x3.8 mm.
49SSMD:11.5 x 4.80 x3.0 mm
Surface mount type crystal u
A great number of standard frequency



Specifications

Project	项目	SPECIFICATION 规格
Frequency Range	频率范围	3M~100MHz
Operation Mode	振动模式	(3 ~ 40MHz) Fundamental (27 ~ 100MHz) 3rd /5rd Overtone
Loading Capacitance	负载电容	20pF Std. 8 to 33pF , Series available
Drive Level	激励电平	10μW (300μW Max)
Frequency Tolerance	频率偏差	±10ppm ~ ±30PPM (at 25°C)
Equivalent Resistance	谐振电阻	See Below
Frequency Stability	频率稳定性	±10ppm ~ ±50PPM
Operating Temp. Range	工作温度范围	-10~+60°C to -40~+85°C
Storage Temp. Range	储存温度范围	-55 ~ +125°C

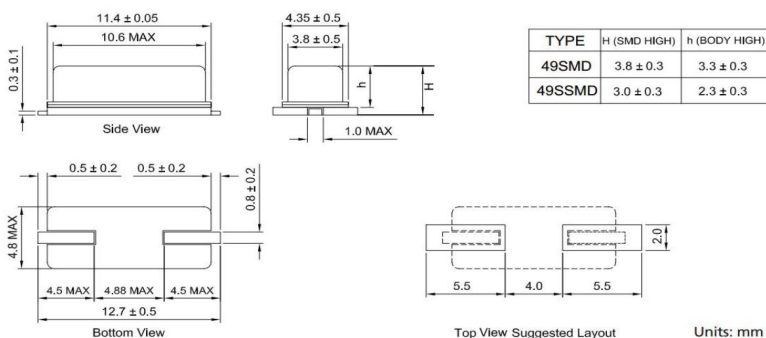
■ Table 1: Operating temperature range and frequency stability

Operation Temperature Range	Frequency Stability				
	±10PPM	±15PPM	±20PPM	±30PPM	±50PPM
-10°C~+60°C	●	●	●	●	●
-20°C~+70°C	●	●	●	●	●
-40°C~+85°C	○	○	●	●	●

■ Table 2: Equivalent series resistance

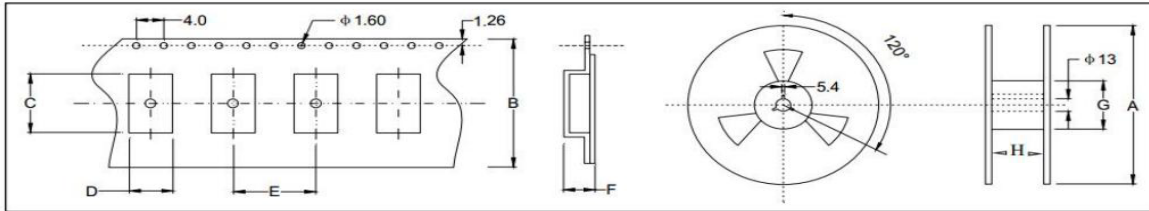
Frequency (MHz)	Overtone Order	ESR (Ω MAX)
3.0~4.499MHz	Fundamental	150Ω(MAX)
4.500~5.999MHz	Fundamental	100Ω(MAX)
6.000~7.999MHz	Fundamental	80Ω(MAX)
8.000~9.999MHz	Fundamental	60Ω(MAX)
10.000~11.999MHz	Fundamental	50Ω(MAX)
12.000~40.000MHz	Fundamental	40Ω(MAX)
27.000~100MHz	AT 3rd/OT	100Ω(MAX)

Dimensions and Patterns [unit:mm]



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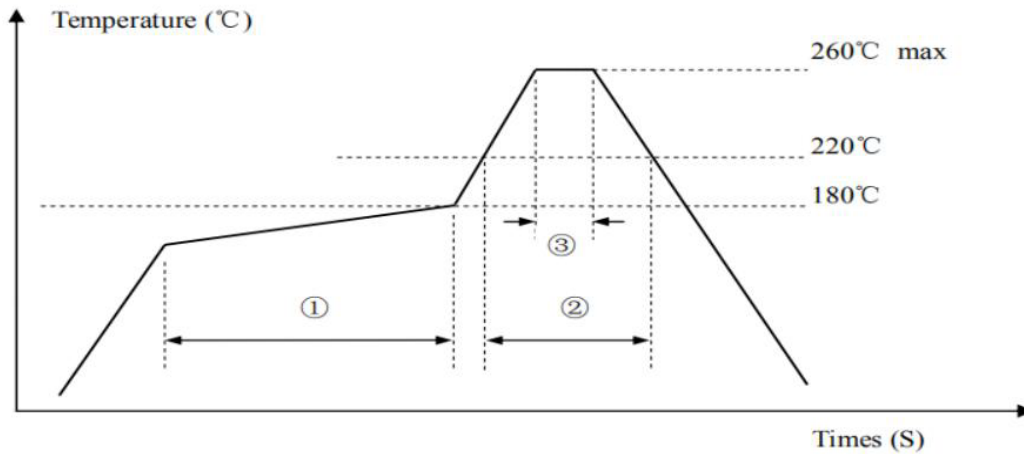
Taping Specification(Unit: mm)



Size	A	B	C	D	E	F	G	H
49SMD	330±2.0	24.0±0.3	11.90±0.1	5.00±0.1	8.0±0.1	4.25±0.2	100.0±1.0	24.5±1.0
49SSMD	330±2.0	24.0±0.3	11.80±0.1	5.00±0.1	8.0±0.1	3.50±0.2	100.0±1.0	24.5±1.0

1000 pcs per reel

REFLOW SOLDERING PROFILE



Pb free reflow A	①	Preheat	160~180°C	120sec. max
	②	Primary heat	220°C	60sec. max
	③	Peak	260°C	10sec. max.