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**SMD Glass Sealed CRYSTAL RESONATOR**

**SMD X'TAL 3.2x2.5x0.7mm**

**Applications**

- Consumer Products
- Mobile Communications
- Bluetooth
- IOT Communic

**Features**

- Dimensions: 3.20x2.50x0.70mm
- Reflow soldering is available
- 4 pads SMD glass sealed crystal
- High precision and high frequency stability



**Specifications**

Project	项目	SPECIFICATION 规格
Frequency Range	频率范围	8.0M~60MHz
Operation Mode	振动模式	Fundamental
Loading Capacitance	负载电容	6.8 to 32pF, Series available
Drive Level	激励电平	10μW (200μW 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

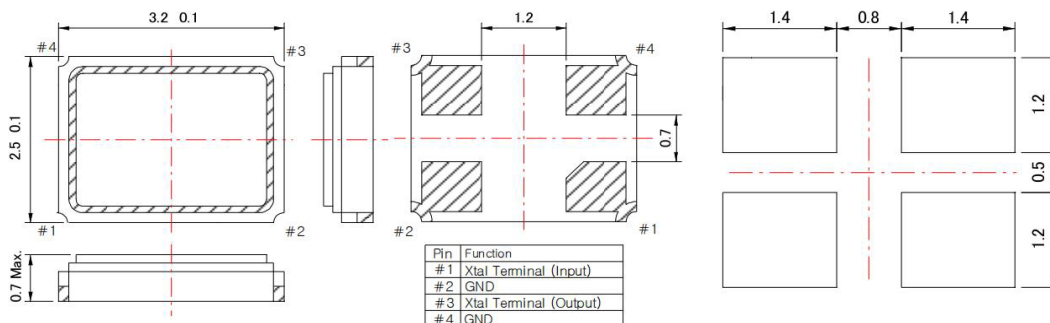
Table 1: Operating temperature range and frequency stability

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)
8 ~ 11MHz	Fundamental	250 Ω (MAX)
12~16MHz	Fundamental	80 Ω (MAX)
17~24MHz	Fundamental	50 Ω (MAX)
25~60MHz	Fundamental	40 Ω (MAX)

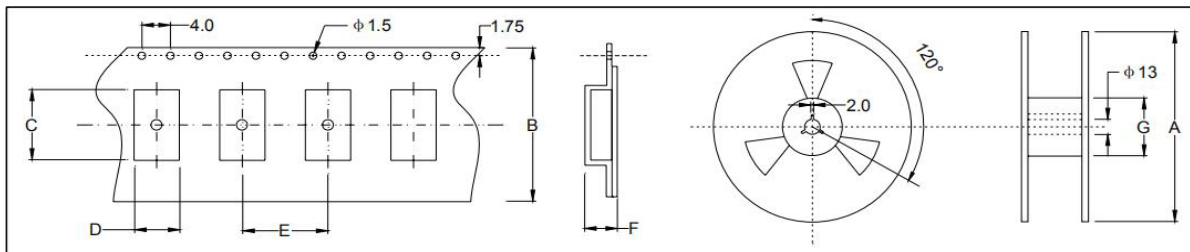
**Dimensions and Patterns [unit:mm]**



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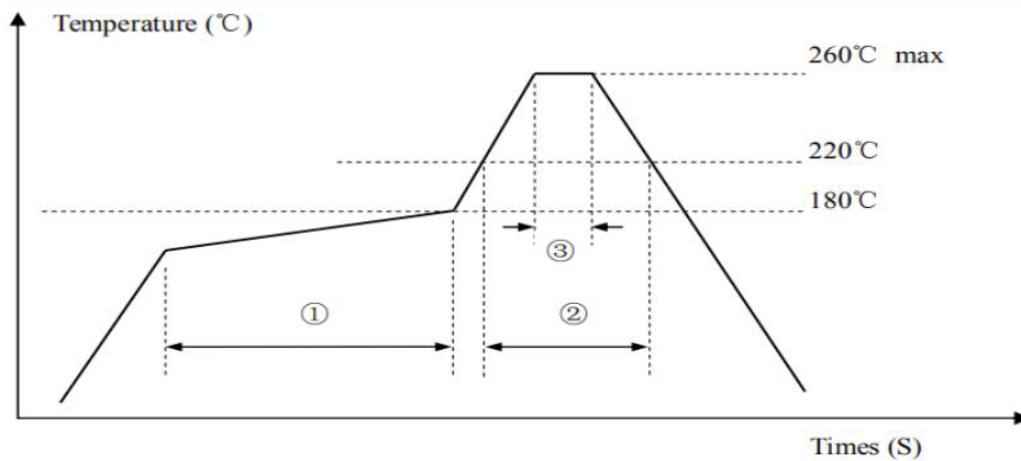
**SMD X'TAL 3.2×2. 5×0.7mm**

**Taping Specification(Unit: mm)**



	A	B	C	D	E	F	G
SMD3225	178±2.0	12.0±0.3	3.55±0.10	2.80±0.10	4.0±0.1	0.85±0.10	60.5±1.0
3000 pcs per reel							

**REFLOW SOLDERING PROFILE**



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