

Features

- Frequency range : 24MHz to 80MHz
- Extremely small SMD type crystal
- 4 pad AuSn sealing, ceramic package
- High precision and frequency stability
- External dimensions (mm)
L : 1.2 x W : 1.0 x H : 0.33
- RoHS and REACH compliant & Pb free

Applications

- Wearable devices
- Wi-Fi, BT or other wireless module
- IoT devices
- Smart phone
- Space limited application

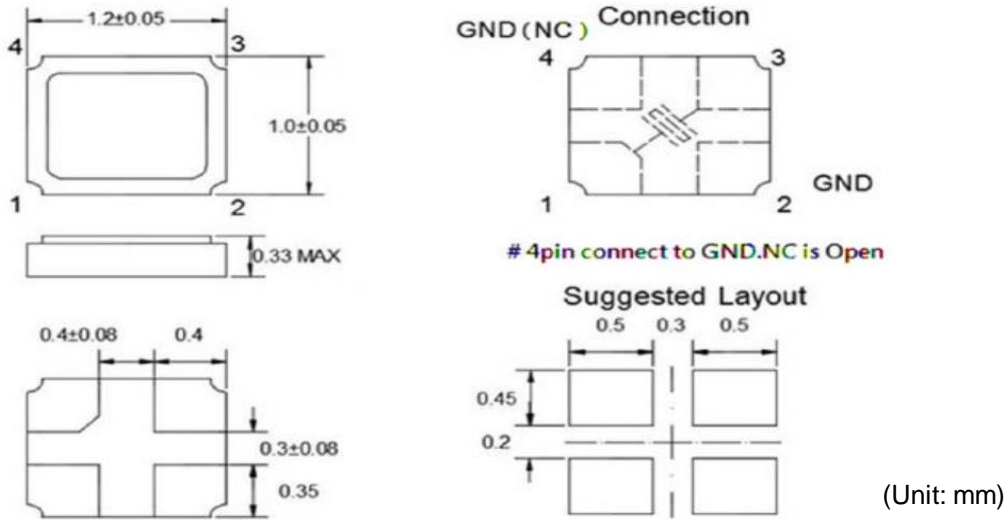
Electrical Characteristics

Item		QT121S	Conditions
Frequency Range	F_0	24MHz ~ 80MHz	
Frequency Tolerance	F_{tol}	$\pm 30\text{ppm}$, $\pm 20\text{ppm}$, $\pm 10\text{ppm}$	at 25°C
Frequency Stability over Operating Temperature Range (refer to 25°C)	F_{stab}	$\pm 30\text{ ppm}$	-20°C ~ +70°C
		$\pm 20\text{ ppm}$	
		$\pm 10\text{ ppm}$	
		$\pm 10\text{ ppm}$	-30°C ~ +85°C
		$\pm 30\text{ ppm}$ $\pm 20\text{ ppm}$	-40°C ~ +85°C
Operating Temperature Range	T_{OTR}	-20°C ~ +70°C	
		-40°C ~ +85°C	
Shunt Capacitance	C_0	3pF Max.	
Drive Level	D_L	1 ~ 200 μW (100 μW Typ.)	
Load Capacitance	C_L	6pF, 8pF, 10pF, 12pF	
Aging	F_{aging}	$\pm 3\text{ ppm Max.}$	at 25°C \pm 3°C, first year
Storage Temperature Range	T_{STR}	-55°C ~ +125°C	

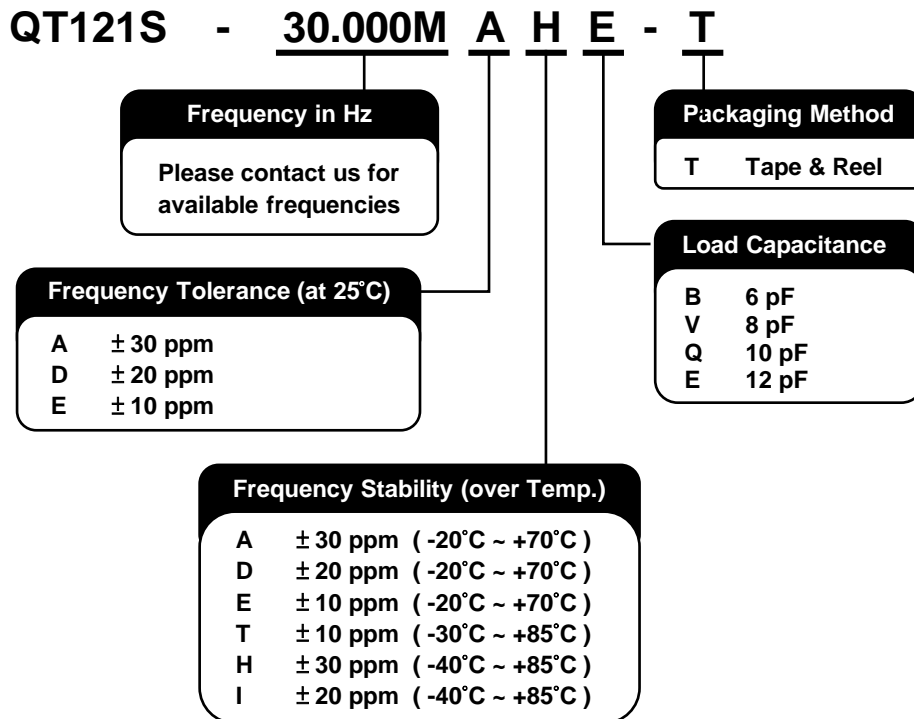
Motional Resistance (ESR)

Fundamental	
24 ~ 32 MHz	100 Ω Max.
37.4 ~ 48 MHz	80 Ω Max.
> 48 MHz	60 Ω Max.

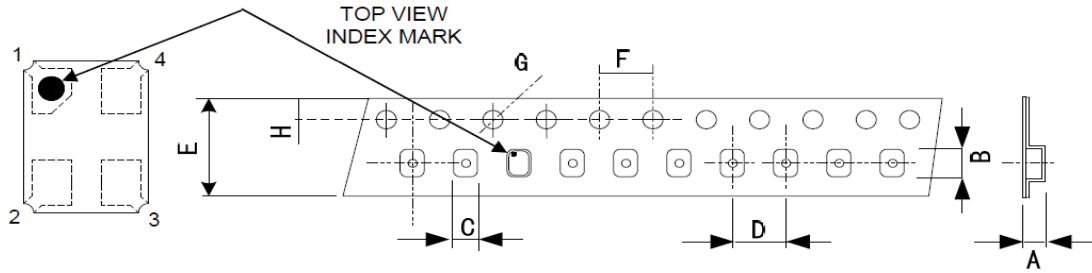
Dimensions



Ordering Information

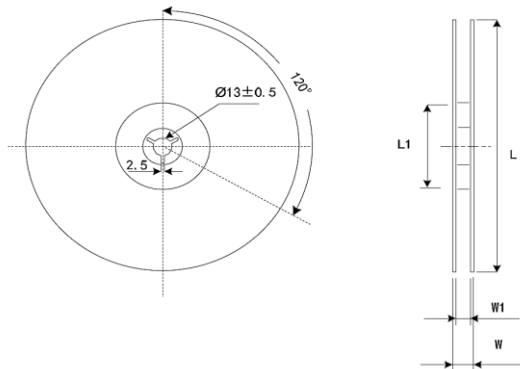


Packing



DIMENSIONS	A	B	C	D	E	F	G	H
	0.45	1.30	1.10	4.00	8.00	4.00	1.55	1.75
	±0.05	±0.05	±0.05	±0.10	±0.20	±0.10	±0.05	±0.10

(Unit: mm)



DIMENSIONS	L	L1	W	W1
	178	60.2	11.5	8
	±1.00	±0.50	±0.2	+1/-0

(Unit: mm)

Reflow Profile

Solder melting point : 220°C ± 10°C, 60 sec. Min.

Peak temperature : 260°C ± 10°C, 10 sec. Min.

