Quartz Crystal Unit — 4G Series

Seam Sealed Ceramic SMD Package (6 x 3.5mm) *(4 Pads)*

MEC Crystals

Features:

- Ultra thin, thickness 1.1mm
- Leadless type
- High precision characteristic covering up to high frequency range
- Automatic mounting
- Embossed taping specification
- Reflow soldering
- **RoHs Compliant (Pb Free)**

Electrical Specifications:

Frequency Range	**8MHz to 80MHz**
Frequency Tolerance (at 25°C)	±10ppm, ±20ppm, ±30ppm, ±50ppm or specify
Frequency Stability over Operating Temperature Range	±10ppm, ±20ppm, ±30ppm, ±50ppm or specify
Operating Temperature Range	-10°C to +60°C, -20°C to +70°C or specify
Storage Temperature Range	-55°C to +125°C
Aging at 25°C 1st year (max)	±3ppm, ±5ppm / year
Shunt Capacitance	5.0pF maximum
Drive Level	10μW ~ 100μW
Load Capacitance (C_L)	Series, 16pF, 20pF, 30pF, 32pF or specify
Equivalent Series Resistance ESR (Ω)	see chart

Equivalent Series Resistance (ESR) and Mode of Operation (Mode):

Frequency Range	E.S.R. (ohms)	Mode
8.000MHz ~ 9.999MHz	70 max.	Fundamental / AT
10.000MHz ~ 29.999MHz	40 max.	Fundamental / AT
30.000MHz ~ 44.999MHz	60 max.	3rd Overtone / AT
45.000MHz ~ 80.000MHz	50 max.	3rd Overtone / AT

Part Numbering System:

4G 16.000 F 16 X 10 30

① ② ③ ④ ⑤ ⑥ ⑦

① Series

4G

② Frequency

Frequency
ex. 16.000

③ Mode of Vibration

Code	Cut-Mode
F	AT Fund
3	AT 3rd OT

④ Load Capacitance CL

Code	Load Capacitance
S	Series
16	16pF
20	20pF
30	30pF
32	32pF
or specify	

⑤ Operating Temperature

Code	Ranges
A	-10°C ~ +60°C
B	-20°C ~ +70°C
X	-40°C ~ +85°C

⑥ Frequency Tolerance

Code	Tolerance
10	± 10 ppm
15	± 15 ppm
20	± 20 ppm
25	± 25 ppm
30	± 30 ppm
50	± 50 ppm
or specify	

⑦ Frequency Stability

Code	Stability
10	± 10 ppm
15	± 15 ppm
20	± 20 ppm
25	± 25 ppm
30	± 30 ppm
50	± 50 ppm
or specify	

Remark: Specifications are subject to change without prior notice. Please confirm with our sales engineer.

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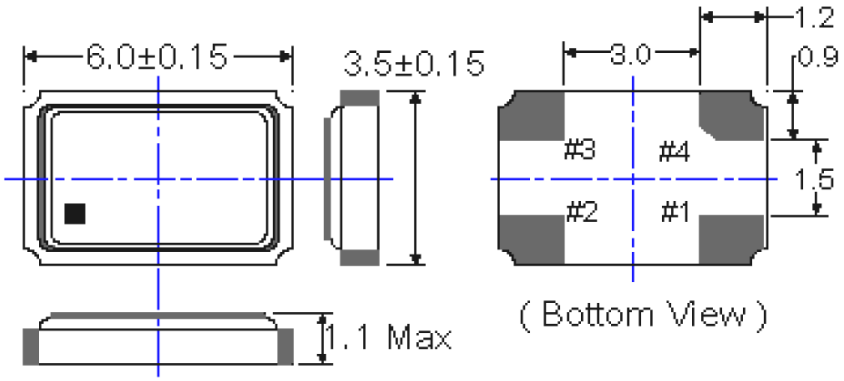
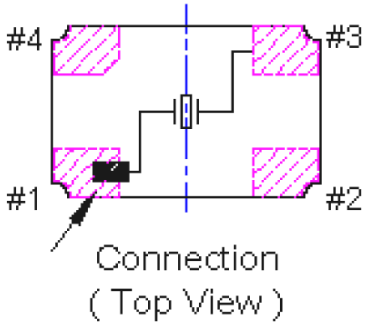
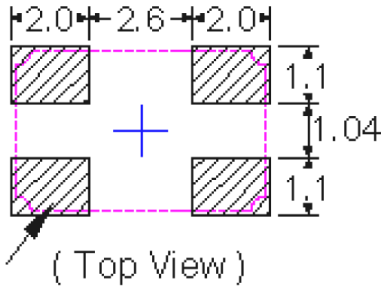
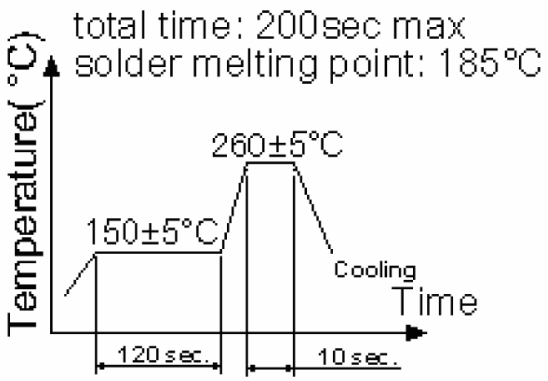
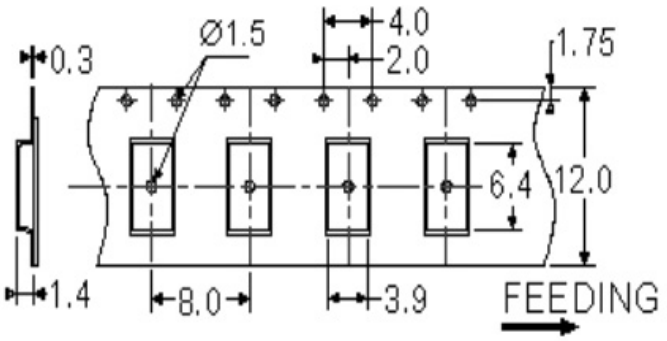
Dimensions:

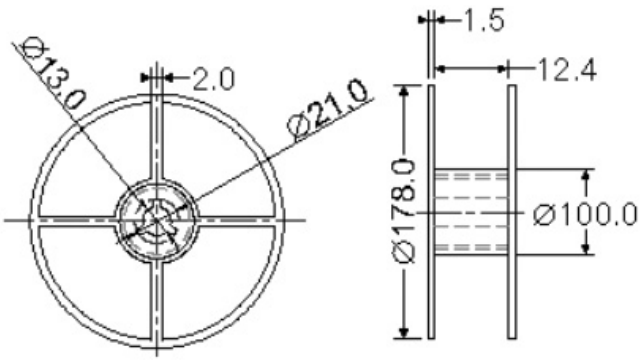












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