

kHz Range Crystal unit

MC-306

SEIKO EPSON CORPORATION

Product name MC-306 38.400000 kHz 12.5 +20.0-20.0
Product Number / Ordering code Q14MC30610082xx

Please refer to the 5.Packing information about xx (last 2 digits)

Complies with EU RoHS directive
Reference weight Typ. 126 mg

1.Absolute maximum ratings						
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions / Remarks
Storage temperature	T_stg	-55	-	+125	°C	Storage as single product
Maximum drive level	GL	-	-	1.0	μW	

2.Specificatoin(s)(characteristics)						
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions / Remarks
Nominal frequency	f_nom	-	38.4	-	kHz	
Operating temperature	T_use	-40	-	+85	°C	
Level of drive	DL	-	-	1.0	μW	
Frequency tolerance	f_tol	-20.0	-	+20.0	x 10 ⁻⁶	+25°C DL=0.1μW
Turnover temperature	Ti	+20	+25	+30	°C	
Parabolic coefficient	B	-	-	-0.04	x 10 ⁻⁶ /°C ²	
Load capacitance	CL	-	12.5	-	pF	
Motional resistance (ESR)	R1	-	TBD	TBD	k Ω	
Motional capacitance	C1	-	TBD	-	fF	
Shunt capacitance	C0	-	TBD	-	pF	
Motional inductance	L1	-	TBD	-	kH	
Frequency aging	f_age	-5	-	+5.0	x10 ⁻⁶ /yea	@+25°C, First year

3.External dimensions (Unit: mm)

Do not connect #2 and #3 to external device.
The metal case inside of the molding compound may be exposed on the top or bottom of this product.
This purely cosmetic and does not have any effect on quality, reliability or electrical specs.

4.Footprint(Recommended) (Unit: mm)

5.Packing information

[1]Product number last 2 digits code (xx) description

The recommended code is "00"

Q14MC30610082xx

Code	Condition	Code	Condition
01	Any Q'ty vinyl bag(Tape cut)	14	1000pcs / Reel
11	Any Q'ty / Reel	15	2000pcs / Reel
12	250pcs / Reel	00	3000pcs / Reel
13	500pcs / Reel		

(1) Tape dimensions TE1608L

Material of the Top Tape : PET+PE

Technical drawing of a mechanical part, likely a bracket or support, showing dimensions and tolerances. The drawing includes a top view and a side view.

Top View Dimensions:

- Overall width: $10P: 40 \pm 0.1$
- Overall height: 16.0 ± 0.3
- Distance from left edge to first hole center: 2.0 ± 0.1
- Distance between hole centers: 4.0 ± 0.1
- Distance from left edge to first hole center (alternative dimension): 8.0 ± 0.1
- Distance from right edge to last hole center: 4.1 ± 0.1
- Radius of outer corners: $\phi 1.5^{+0.1}_{-0}$
- Distance from top edge to hole center line: 7.5 ± 0.1
- Distance from top edge to bottom edge: 1.75 ± 0.1

Side View Dimensions:

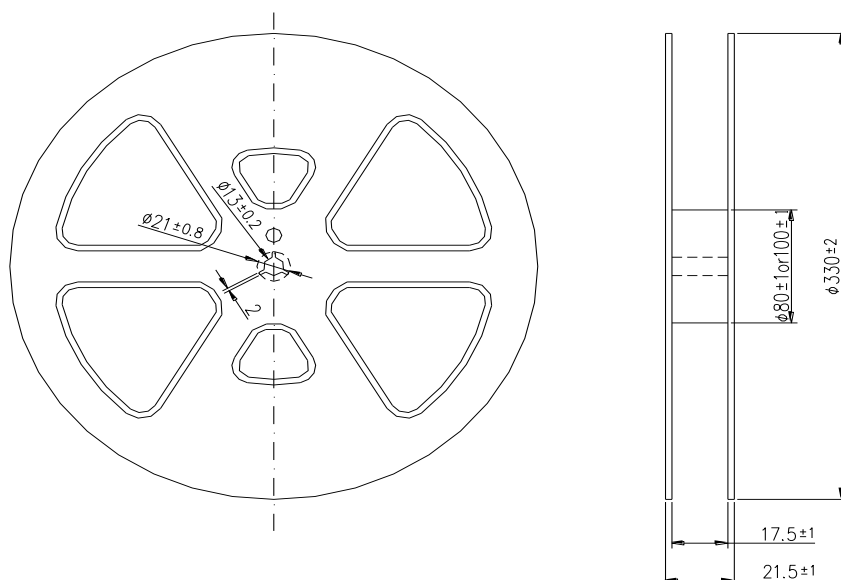
- Overall height: 8.5 ± 0.1
- Distance from top edge to bottom edge: 2.7 ± 0.1
- Distance from left edge to right edge: 0.3 ± 0.05
- Angle: 5° Max.

Labels:

- Top Tape

Material of the Reel : PS

Unit: mm



Reflow profile

Pre Heating Temperature

Tp1 ~ Tp2 = + 170 °C

Heating Temperature

T_{Mlt} = + 220 °C

Peek Temperature

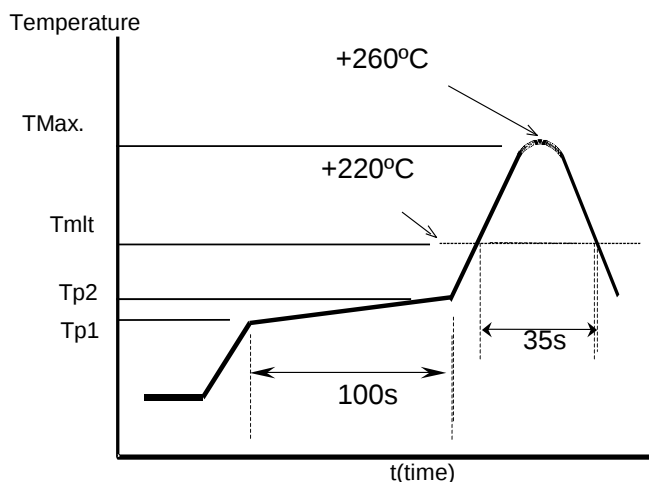
T_{Max.} = + 260 °C

Point of measuring

In case of Solder ability

Terminal.

In case of Resistance to soldering heat
Surface.

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