

No. TAS-23-132

Date 2023-09-13

Product Approval

RoHS
Complaint
2002/95/EC

MESSRS

Crystal Land

Product	Crystal Resonator
Type of Holder	HC49SM40 H: 4.0 \pm 0.2mm
Nominal Frequency	16.000 MHz
Caltron Part Number	X16.000-SM40-J-30-30A
Customer Part Number	

Approved

Date:



✧ **CALTRON DEVICES LTD.**

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Checked	Approved

SPECIFICATIONS

1. Purpose and Scope

This document contains specification related to Crystal Resonator Model HC49SM40 for consumer purpose.

Caltron Part No. : X16.000-SM40-J-30-30A

Nominal Frequency : 16.000 MHz

Case Type : HC49SM H: 4.0 ±0.2mm 2pin

2. Electrical Characteristics

■ Standard Atmospheric Conditions

Unless specified the range of atmospheric conditions for measurement; otherwise the test is as follows:

Conditions	Rating
Ambient temperature	25°C ±3°C
Relative humidity	60% ~ 70%
Air pressure	86kPa ~ 106kPa

■ Electrical Specifications

Specifications	Parameters
Nominal Frequency	16.000 MHz
Mode of Vibration	Fundamental
Mode of Cut	AT-cut
Test Circuit	Parallel
Frequency Tolerance @25°C	±30ppm
Temperature Characteristics	±30ppm refer to 25°C
Operating Temperature Range	-10°C ~ +60°C
Storage Temperature	-40°C ~ +85°C
Equivalent Resistance of Series	40Ω Max.
Load Capacitance (CL)	18pF
Drive Level	100uW Max.
Shunt Capacitance	5.0pF Max.
Aging per year	±5ppm
Insulation Resistance	>500MΩ/100VDC



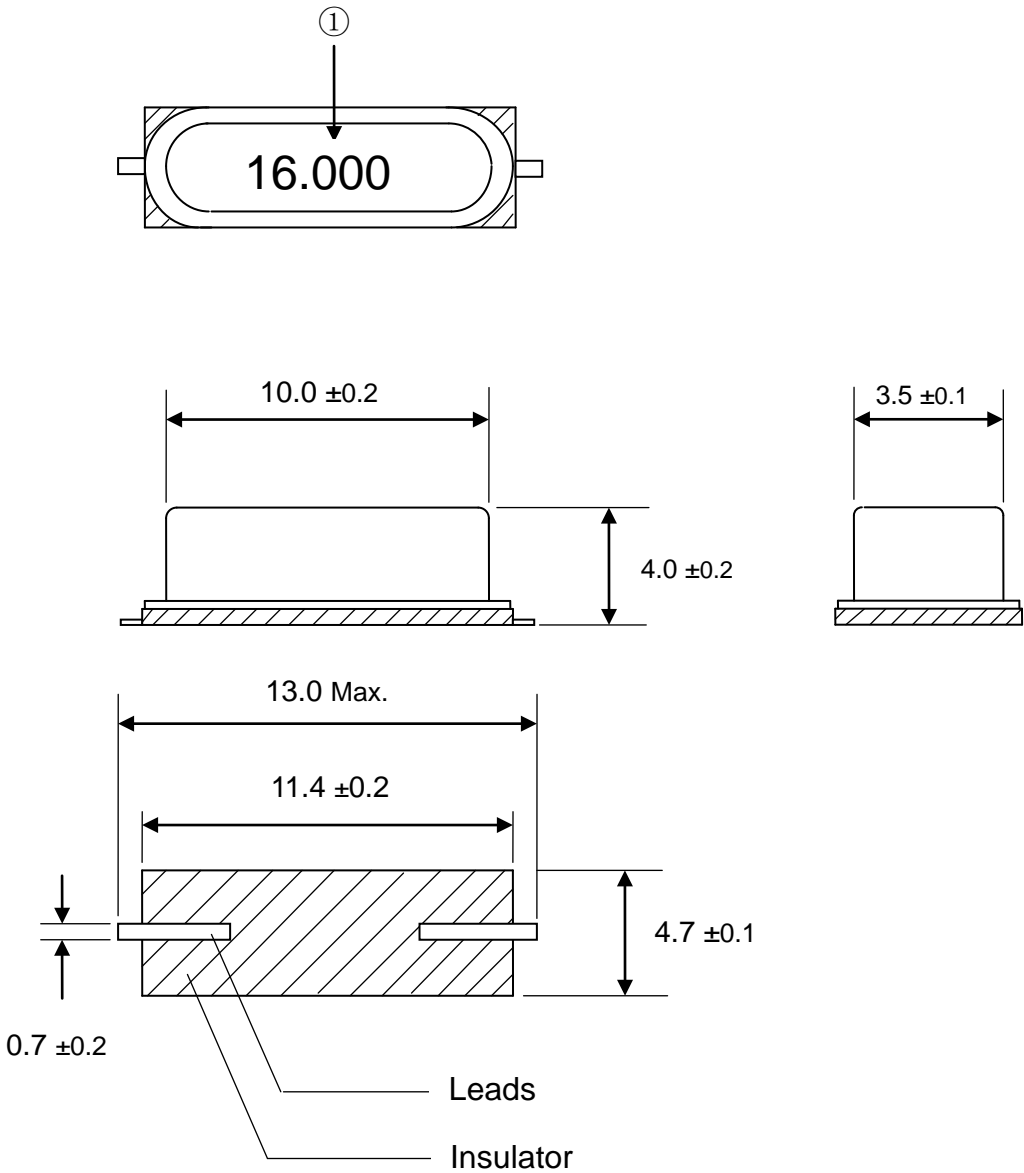
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3. Outline Dimensions & Marking

Marking:

① Frequency



Subject to change without notice.

Unit: mm

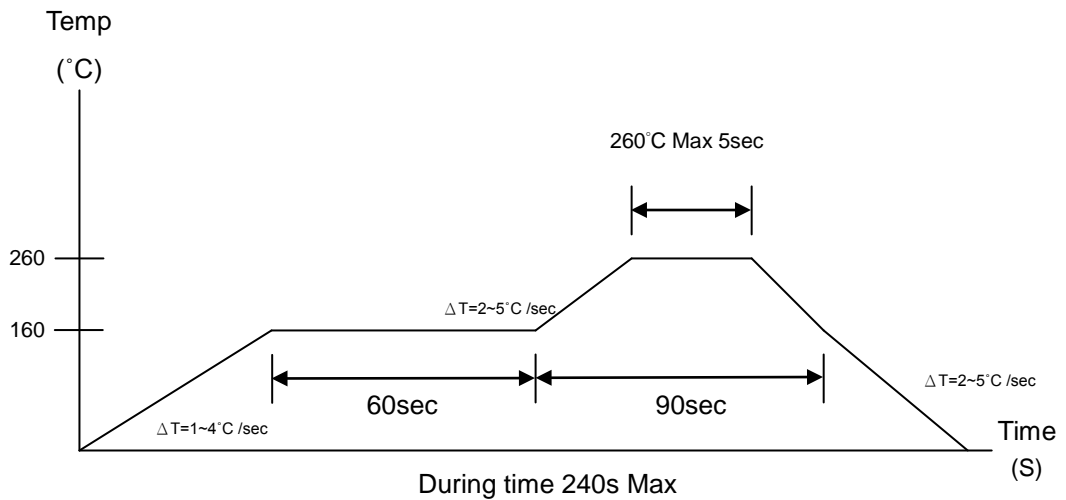


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Rev	1	2/5
Drawing No.	AKU-12030	Rev. 1

4. Soldering Conditions

4.1 Reflow Soldering Conditions



4.2 Iron Soldering Conditions

Solder iron temp below 350°C for 5s

5. Mechanical Reliability

5.1 Drop from 60cm on 30mm thick wooden board 3 cycles

5.2 Vibration 10~55Hz 1.5mm x-y-z Axis for 60 min. each

5.3 Solderability: dipped into pot 260°C for 5s Max

Drift (r/n 1/20)

Freq $\pm 10\text{ppm Max.}$

ESR $\pm 15\% \text{ Max.}$

Freq $\pm 10\text{ppm Max}$

ESR $\pm 15\% \text{ Max.}$

90% coverage

Subject to change without notice.

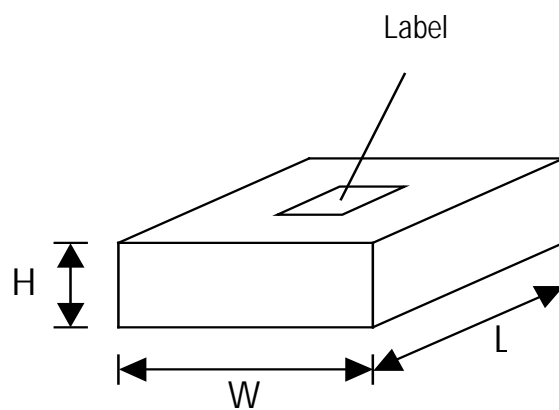
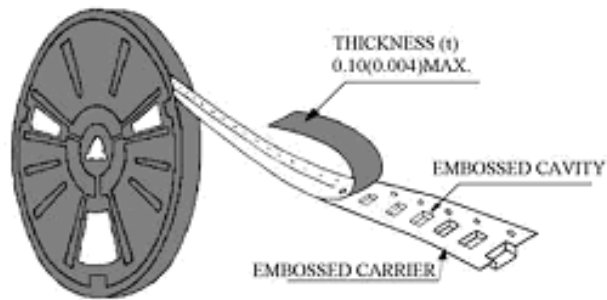


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Rev	1	3/5
Drawing No.	AKU-11769	Rev. 1

6. Packing & Label

Each 1000 pcs/reel , 1 reel into a box , 5 boxes into 1 carton

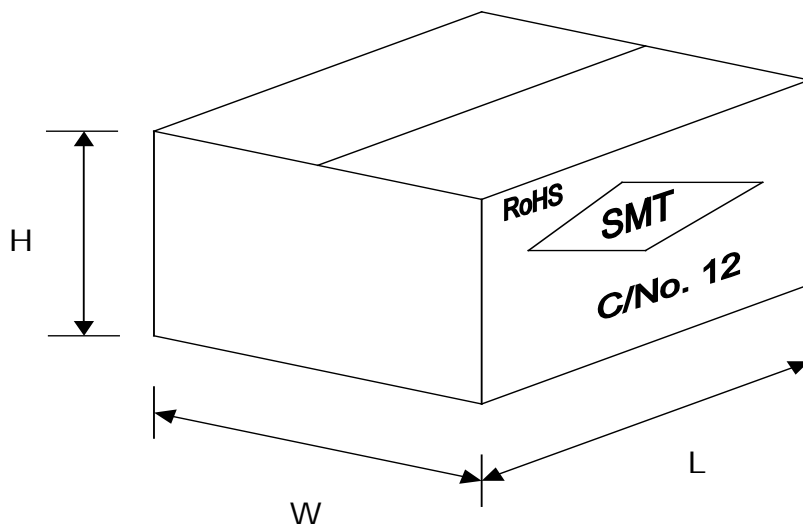


Inner box size :

L : 33.5 cm

W : 33.5 cm

H : 3.80 cm



Carton size:

L : 35.5 cm

W : 35.5 cm

H : 21.0 cm

Subject to change without notice.



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Date	2023-09-13	
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Rev	1	4/5
Drawing No.	AKU-11717	Rev. 3

7. Revision History

Revision	Date	Page	Contents	Prepared	Checked	Approved
001	230913	New	New	MH.Xu	HL.Zhao	CQ.Luo

Notice

The information contained herein is subject to change without notice.

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Model No.	HC49SM40	
Date	2023-09-13	
Ref. No.	TAS-23-132	
Rev	1	5/5
Drawing No.	AKU-13161	Rev. 2