

## ●Part Number Guide

T-M-FF.FFFM-LC-FTFS-OT-ESR-TR-S

T(Type 型号): M=HC-49USM with height of 4.0mm Max  
M2=HC-49USM with height of 3.5mm Max  
M3=HC-49USM with height of 3.2mm Max  
M4=HC-49USM with height of 3.0mm Max

M(Mode of Operation 振荡模式):F=Fundamental T=Third Overtone, etc

F(Frequency 标称频率):Normal – 5 digitals of Frequency, e.g. 8.0000M, 12.000M  
Special – All digitals of Frequency, e.g. 13.225625M

LC(Load Capacitance 负载电容):20=20pf 00=series, etc

FT(Frequency Tolerance 调整频差):30=±30ppm, etc

FS(Frequency Stability 温度频差):50=±50ppm, etc

OT(Operating Temperature 工作温度):1060=-10°C to +60°C 4085=-40°C to +85°C, etc

ESR(Equivalent Series Resistance 等效阻抗)

TR(Tape and Reel 编带)

S(Special Requirement 特殊要求)

## ●Electrical Specifications 电气参数

| 型号     | Holder Type                                 | HC-49USM                            |
|--------|---|-------------------------------------|
| 频率范围   | Frequency Range                             | 3.2000MHz to 130.00MHz ※(See Notes) |
| 调整频差   | Frequency Tolerance ( $\Delta F$ ) (at25°C) | ±10ppm to ±100ppm                   |
| 温度频差   | Frequency Stability                         | ±10ppm to ±100ppm                   |
| 工作温度范围 | Operating Temperature Range                 | -10°C~+60°C to -40°C~+85°C          |
| 储存温度范围 | Storage Temperature Range                   | -40°C~+85°C / -55°C~+125°C          |
| 老化     | Aging (25°C)                                | ±5ppm/Year Maximum                  |
| 静电容    | Shunt Capacitance (C0)                      | 7pF Maximum                         |
| 激励功率   | Drive Level                                 | 100µW Typical                       |
| 绝缘阻抗   | Insulation Resistance (Rs)                  | 500 Mega ohms Minimum at D.C100V    |
| 负载电容   | Load Capacitance (CL)                       | Suggested by customer               |

※ Notes: for 3.0mm height, lowest frequency is 10 MHz  
for 3.2mm & 3.5mm height, lowest frequency is 6 MHz

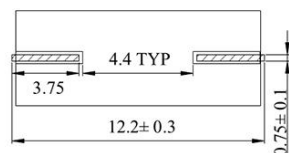
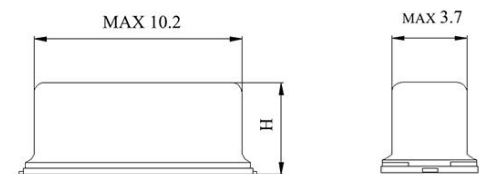
## ●Equivalent Series Resistance and Mode of Operation

### 等效阻抗和振荡模式

| Frequency Range 频率范围 | ESR ( $\Omega$ ) 等效阻抗 | Mode 振荡模式      |
|----------------------|-----------------------|----------------|
| 3. 2000-3. 5790MHz   | 250Max                | Fundamental    |
| 3.5790-4.0000 MHz    | 150 Max               | Fundamental    |
| 4.0000-5.0000 MHz    | 120 Max               | Fundamental    |
| 5.0000-6.0000 MHz    | 100 Max               | Fundamental    |
| 6.0000-7.0000 MHz    | 80 Max                | Fundamental    |
| 7.0000-10.000 MHz    | 60 Max                | Fundamental    |
| 10.000-14.000 MHz    | 50 Max                | Fundamental    |
| 14.000-20.000 MHz    | 40 Max                | Fundamental    |
| ≥20.000MHz           | 30/40(BT cut) Max     | Fundamental    |
| 24.000-35.000 MHz    | 100 Max               | Third Overtone |
| ≥35.000 MHz          | 80 Max                | Third Overtone |



## • Mechanical Dimensions外型尺寸



UNIT(单位):mm(毫米)  
H:M=4.0mm MAX  
M2=3.5mm MAX  
M3=3.2mm MAX  
M4=3.0mm MAX

## • Reflow Condition 回流焊条件

