

## HC49USSMD

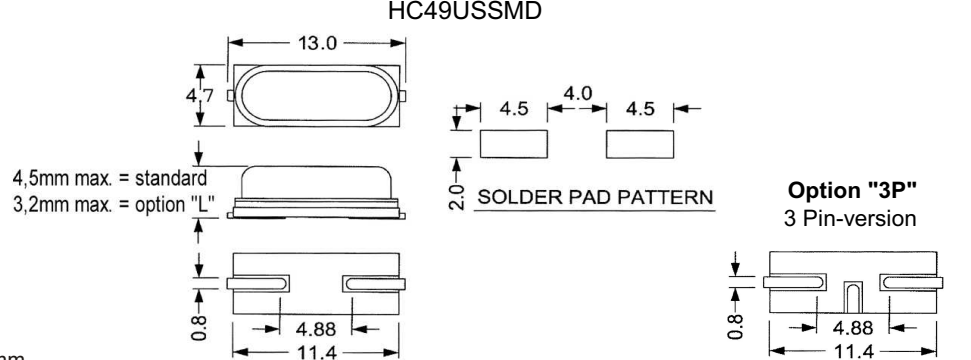
## Features:

- Wide frequency range
- Tight tolerance and stability over temperature
- Tape & reel packaging
- 3 pin-version available



| Specifications               |                         |                  |                              |                    |
|------------------------------|-------------------------|------------------|------------------------------|--------------------|
|                              |                         | Symbol           | HC49USSMD                    | Remarks            |
| Frequency range              |                         | f                | 3.579MHz ~ 35.000MHz         | Fund. mode         |
|                              |                         |                  | 30.000MHz ~ 90.000MHz        | Overtone mode      |
| Frequency tolerance, Ta=25°C |                         | f/f              | ± 3ppm ~ ± 50ppm             | Please specify     |
| Load capacitance             |                         | C <sub>L</sub>   | 5pF ~ 50pF or user specify   | Please specify     |
| Temperature tolerance        |                         | f/f              | ±3ppm ~ ± 50ppm              | Please specify     |
| Temperature range            | Storage temperature     | T <sub>STG</sub> | -40°C ~ +105°C               |                    |
|                              | Operating temperature   | T <sub>OPR</sub> | 0°C ~ +70°C / -40°C ~ +105°C | Others are offered |
| Drive level                  | Maximum drive level     | M <sub>DL</sub>  | 1000 W                       |                    |
|                              | Recommended drive level | R <sub>DL</sub>  | 10 W ~ 100 W                 |                    |
| Series resistance            |                         | R <sub>1</sub>   | As per table                 | 25°C               |
| Shunt capacitance            |                         | C <sub>0</sub>   | 7pF                          | Max                |
| Insulation resistance        |                         | I <sub>R</sub>   | 500M Ohm                     |                    |
| Aging                        |                         | f <sub>A</sub>   | ± 1ppm ~ ±5ppm/Year          | Please specify     |

| Resistance of series resonance (ESR) |             |         |  |                 |             |         |
|--------------------------------------|-------------|---------|--|-----------------|-------------|---------|
| Frequency (MHz)                      | Mode        | Ohm max |  | Frequency (MHz) | Mode        | Ohm max |
| 3.579 ≤ f < 6.0                      | Fundamental | 150     |  | 15.0 ≤ f < 35.0 | Fundamental | 40      |
| 6.0 ≤ f < 10.0                       | Fundamental | 100     |  | 30.0 ≤ f < 90.0 | 3rd OT      | 70      |
| 10.0 ≤ f < 15.0                      | Fundamental | 60      |  |                 |             |         |

| Drawing                                                                                                                                                                                                                                                        |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p style="text-align: center;"><b>HC49USSMD</b></p>  <p>4,5mm max. = standard<br/>3,2mm max. = option "L"</p> <p>Option "3P"<br/>3 Pin-version</p> <p>Dimensions in mm</p> |  |

| Order key |              |             |                     |                     |                         |                                                                                                                                                                   |                  |                                                                         |
|-----------|--------------|-------------|---------------------|---------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------|
| Q         | - 20.000000M | - HC49USSMD | - F                 | - 30                | - 50                    | - D                                                                                                                                                               | - 30             | - TR                                                                    |
| Part      | Frequency    | Package     | Mode of oscillation | Frequency tolerance | Temperature tolerance   | Temperature range                                                                                                                                                 | Load capacitance | Option                                                                  |
| Q=Quartz  | M=MHz        | HC49USSMD   | F=fund.<br>3=3.OT   | +/-ppm<br>(25°C)    | +/-ppm<br>(Temp. range) | A= 0°C ~ 70°C<br>B=-10°C ~ 60°C<br>C=-10°C ~ 70°C<br>D=-20°C ~ 70°C<br>E=-40°C ~ 85°C<br>F=-40°C ~ 105°C<br>G=-40°C ~ 125°C<br>H=-20°C ~ +80°C<br>I=-10°C ~ +50°C | pF<br>SR=series  | 3P=3Pin version<br>L=Low hight<br>TR=Tape and reel<br>X=Special options |

Remarks: All specifications subject to change without notice!