

# D and F Series Crystal

[查询"D20CC1"供应商](#)



- HC-49/US Surface Mounted Crystal
- Wide Frequency Range
- RoHS Compliant Available
- Fundamental or 3<sup>rd</sup> OT AT Cut



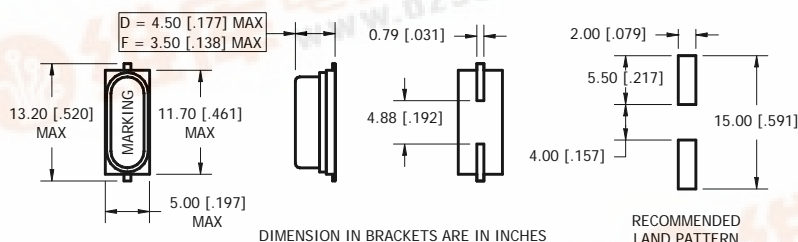
## ELECTRICAL SPECIFICATIONS:

|                                 |  |
|---------------------------------|--|
| Frequency Range                 | 3.200MHz to 80.000MHz                                |
| Frequency Tolerance / Stability | (See Part Number Guide for Options)                  |
| Operating Temperature Range     | (See Part Number Guide for Options)                  |
| Storage Temperature             | -55°C to +125°C                                      |
| Aging                           | ±5ppm / first year Max                               |
| Shunt Capacitance               | 7pF Max  |
| Load Capacitance                | 20pF Standard<br>(See Part Number Guide for Options) |
| Equivalent Series Resistance    | See ESR Chart  |
| Mode of Operation               | Fundamental, or 3 <sup>rd</sup> OT                   |
| Drive Level                     | 1mW Max  |
| Shock                           | MIL-STD-883, Meth 2002, Cond B                       |
| Solderability                   | MIL-STD-883, Meth 2003                               |
| Solvent Resistance              | MIL-STD-202, Meth 215                                |
| Vibration                       | MIL-STD-883, Meth 2007, Cond A                       |
| Gross Leak Test                 | MIL-STD-883, Meth 1014, Cond C                       |
| Fine Leak Test                  | MIL-STD-883, Meth 1014, Cond A                       |

## ESR CHART:

| Frequency Range        | ESR (Ohms) | Mode / Cut              |
|------------------------|------------|-------------------------|
| 3.200MHz to 3.999MHz   | 150 Max    | Fund / AT               |
| 4.000MHz to 4.999MHz   | 120 Max    | Fund / AT               |
| 5.000MHz to 5.999MHz   | 100 Max    | Fund / AT               |
| 6.000MHz to 7.999MHz   | 90 Max     | Fund / AT               |
| 8.000MHz to 9.999MHz   | 70 Max     | Fund / AT               |
| 10.000MHz to 11.999MHz | 50 Max     | Fund / AT               |
| 12.000MHz to 14.999MHz | 50 Max     | Fund / AT               |
| 15.000MHz to 19.999MHz | 40 Max     | Fund / AT               |
| 20.000MHz to 33.000MHz | 30 Max     | Fund / AT               |
| 24.576MHz to 29.999MHz | 100 Max    | 3 <sup>rd</sup> OT / AT |
| 30.000MHz to 80.000MHz | 80 Max     | 3 <sup>rd</sup> OT / AT |

## MECHANICALS DETAIL:

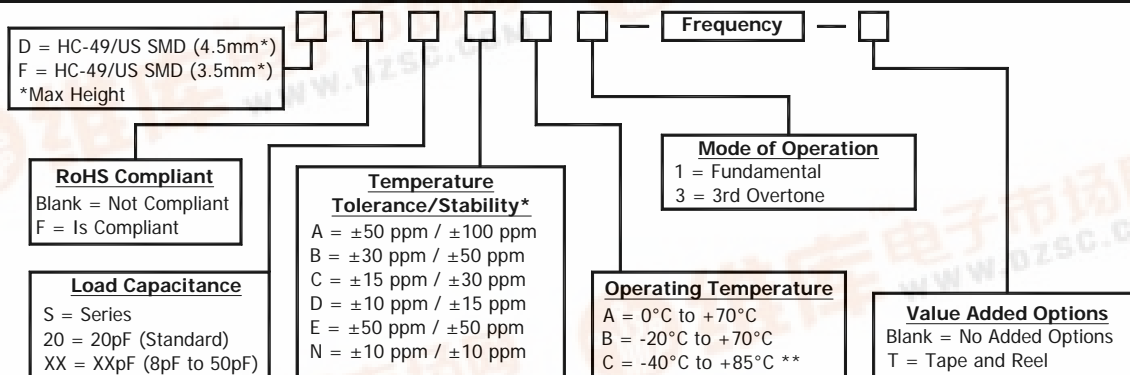


## MARKING:

Line 1: MXX.XXX  
XX.XXX = Frequency in MHz

Line 2: SYMCL  
S = Internal Code  
YM = Date Code (Year/Month)  
CC = Crystal Parameters Code  
L = Denotes RoHS Compliant

## PART NUMBER GUIDE:



\* Please consult with MMD sales department for any other parameters or options.  
\*\* Not all Frequency Tolerance/Stability options available at this temperature range.

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Specifications subject to change without notice

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