

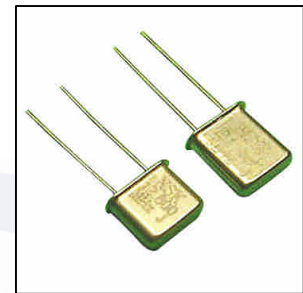
Quartz Crystal

Holder Code M & N, RESISTANCE WELDED PACKAGE



FEATURE

- Excellent frequency temperature characteristics extending across a wide temperature range
- Excellent aging characteristics
- Uniform frequency tuning range and modulation sensitivity
- Excellent shock resistance
- Lead Free & RoHS Compliant



ELECTRICAL SPECIFICATIONS

Nominal frequency	4.000MHz ~ 200.00MHz
Oscillation mode	Fundamental / 3 rd Overtone / 5 th Overtone / 7 th overtone
Operating temperature range	-20°C--+70°C (Typical), -10°C ~ +60°C, -40°C ~ +85°C, or specify
Storage temperature range	-40°C--+85°C
Frequency tolerance	±10PPM ~ ±50PPM
Freq. Temp characteristics	±10PPM ~ ±50PPM
Load capacitance	Series, 16pF, 20pF, 30pF, or specify
Equivalent series resistance	See below table
Parallel capacitance(Co)	4.5pF ~ 7PF Max
Drive level	100 µW

EQUIVALENT SERIES RESISTANCE(ESR) AND OSCILLATION MODE

Frequency Range	E.S.R (Ω)	Mode	Frequency Range	E.S.R (Ω)	Mode
4.000MHz~4.999MHz	100Max	Fundamental	14.000MHz~19.999MHz	40Max	Fundamental
5.000MHz~5.999MHz	90Max	Fundamental	20.000MHz~23.999MHz	30Max	3 rd Overtone
6.000MHz~6.999MHz	80Max	Fundamental	24.000MHz~34.999MHz	40Max	3 rd Overtone
7.000MHz~9.999MHz	60Max	Fundamental	35.000MHz~100.000MHz	80Max	3 rd Overtone
10.000MHz~13.999MHz	50Max	Fundamental	100.000MHz~200.000MHz	100Max	5 th / 7 th Overtone

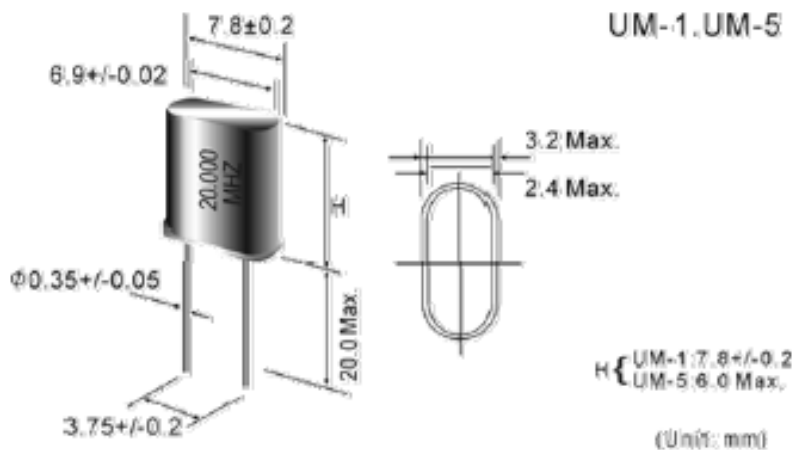
Mechanical characteristics

Resistance to shock:	± 3 PPM Max $\pm 3 \Omega$ Max, Naturally drop it 3 times on a hard wood plate from 100cm height
Resistance to vibration:	± 3 PPM Max $\pm 3 \Omega$ Max

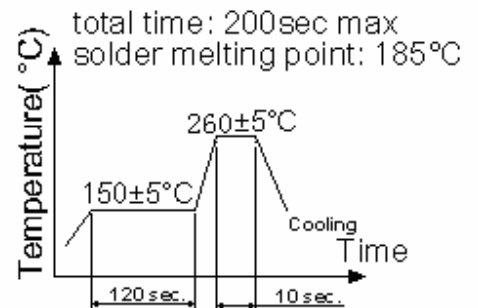
Reliability

Aging	± 3 PPM Max/Year
Air tightness	
(1) Gross leak	should be immersed in hot water($90 \pm 5^\circ\text{C}$) for 5 minutes
(2) Fine leak	should be less than 5×10^{-8} atmcc/sec by helium leak detector
Low drive characteristics	Measured $\Delta 1, C1, 3$ point at 1.0,,10,100 μW

Dimension



Reflow Condition





CRYSTAL PART NUMBER SYSTEM

HOLDER DESCRIPTION	CODE
UM-1	M
UM-5	N

PART NUMBER EXPLANATION - HOW TO ORDER		
D3M5795-17305EFB-G	3,5795MHZ 17PF 30PPM/50PPM FUNDAMENTAL BULK (ROHS COMPLIANT)	
D	DB LECTRO Inc.	
3M5795	FIRST FIVE NUMBERS OF THE FREQUENCY WITH HOLDER CODE AT DECIMAL POINT	
-	"." REGULAR PACKAGE "I" ISOLATED WITH WASHER "V" VINYL SLEEVE "C" CUT LEAD "T" THIRD LEG GROUND	
17	LOAD CAPACITANCE (17PF)	
30	FREQUENCY TOLERANCE (30PPM)	
5	FREQUENCY STABILITY AT OPERATING TEMPERATURE:	
E	OPERATING TEMPERATURE RANGE "E" EXTENDED TEMP. -40°C+85°C "Blank" TYPICAL TEMP. -20°C+70°C "A" STANDARD TEMP. -10°C+60°C	0=5PPM 1=10PPM 2=20PPM 3=30PPM 5=50PPM (TYPICAL) 6=100PPM
F	"F" FUNDAMENTAL "T" THIRD OVERTONE "5" FIFTH OVERTONE "7" SEVENTH OVERTONE	
B	"B" BULK "T" TAPE / REEL "G" TAPE / REEL / GULLWING "C" TAPE / REEL / CRIMPED LEADS	
G	ROHS COMPLIANT	