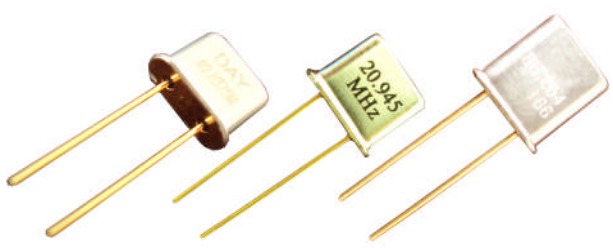


Quartz Crystal Series	
UM-1 UM-5	Features ◆RoHS ◆Package Compliant height 8.0/6.0 mm
	

Electrical Specifications

Item	Specifications	Remarks
Nominal Frequency Range	3.500MHz to 40.000MHz	Fund.; AT-Cut
	25.000MHz to 100.000MHz	3 rd O.T.; BT-Cut
	75.000MHz to 200.000MHz	3 rd O.T.; AT-Cut
Frequency Tolerance	±10ppm(Standard) at 25℃±3℃	Others are offered
Load Capacitance	Fund.:10pF to ∞, O.T.:5pF to ∞	Please specify
Series Resistance	As ESR table	
Shunt Capacitance	7pF Max	
Drive Level	10μW to 100μW	1000μW Max
Operating Temperature	-20℃ to +70℃ (Standard)	Others are offered
Storage Temperature	-55℃ to +125℃	
Stability vs. Temperature	±10ppm(Standard)	Others are offered
Insulated Resistance	500MΩ	Minimum at 100Vdc
Aging	±2ppm/year	Maximum

ESR(Series Resistance)

Frequency(MHz)	Mode	Ohm Max(UM-1)	Frequency(MHz)	Mode	Ohm Max(UM-5)
3.5~3.9	Fund.	200	10.0~14.9	Fund.	60
4.0~4.99	Fund.	150	15.0~40.0	Fund.	35
5.0~9.9	Fund.	60	25.0~29.9	3 rd O.T.	60
10.0~40.0	Fund.	30	30.0~49.9	3 rd O.T.	50
25.0~49.9	3 rd O.T.	50	50.0~100.0	3 rd O.T.	60
50.0~100.0	3 rd O.T.	60	75.0~200.0	3 rd O.T.	90
75.0~160.0	3 rd O.T.	80			

Stability vs. Temperature

◆ Standard		T3	T5	1	3	5	0	Remarks
◇ Please specify		±3ppm	±5ppm	±10ppm	±30ppm	±50ppm	±100ppm	
B	-10℃ to +60℃	◇	◇	◇	◇	◇		
C	-20℃ to +70℃	◇	◇	◆	◇	◇	◇	Standard
D	-40℃ to +85℃	◇	◇	◇	◆	◇	◇	

Quartz Crystal Series

UM-1
UM-5

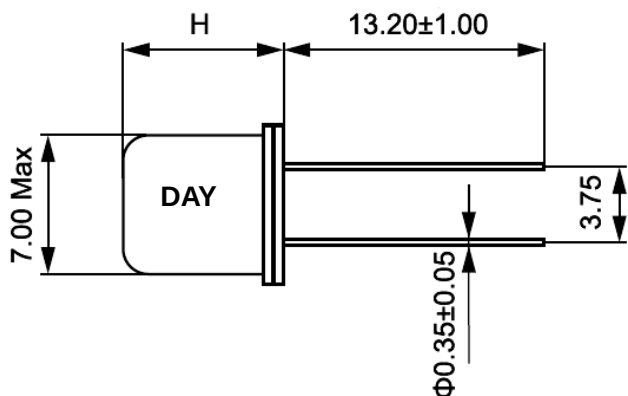
Ordering Information

Q	R	Type	Pin	XX.XXXX XXX.XXX	M	Mode	CL pF	Freq.Tolerance at 25°C	Operating Temp.	Stability Vs.Temp.	Option
											F:Lead Free T:T&R Blank:Bulk
Q:Quartz R:Resonator	U1:UM-1 U5:UM-5	A: 2Pins	Center frequency 3.5 to 200.0MHz	M: MHz	F:Fund.;AT O: 3 rd O.T.;AT	See Table	±3ppm to ±100ppm	See Table	See Table		

Example:QRU1A16.9344MFK1C1F

(Crystal,UM-1,16.9344MHz,Fund.,2pins,20pF,+/-10ppm,-20 to +70degF,+/-10ppm.Bulk,Lead free)

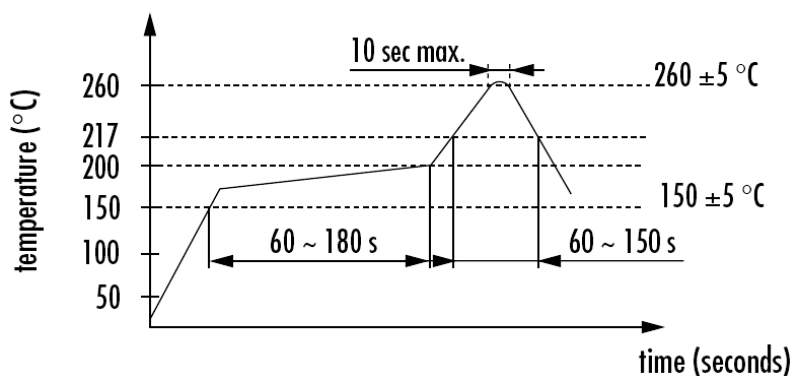
Dimensions



TYPE		H
U1	UM-1	8.0 Max.
U5	UM-5	6.0 Max.

Unit:mm

Reflow Soldering Profile



Load Capacitance Codes

7pF:	E	8pF:	F	9pF:	B	10pF:	R
12pF:	T	15pF:	H	16pF:	I	18pF:	J
20pF:	K	22pF:	L	25pF:	G	27pF:	M
30pF:	N	32pF:	P	33pF:	W	Series:	S