Quartz Crystals

U1G , U5G	U1MJG , U5MJG	Thru - Hole	Fund.	3rd O.T.	5th O.T.	Min.	Max.
[7.8 * 3.2 * 8.0 (6.0) mm]	[7.8 * 2.6 * 8.0 mm]					1.0 MHz	200 MHz

Features

Specifications

- Round shaped AT-Cut crystal plate inside
- Up to 200 MHz using a 5th overtone crystal
- Annealed and pre-aged for low frequency drift over long-term operation

RoHS Compliance

General Specifications

Item / Type	U1	U5	U1MJ	U5MJ
Frequency Range	U1 & U1MJ : 1.0 ~ 1.2 MHz , 4.0 ~ 200.0 MHz ; U5 : 10.0 ~ 200 MHz			
Load Capacitance	Series or Parallel (8 to 32 pF) resonance			
Drive Level	100μ W typical (500μ W max.)			
Frequency Tolerance	AT-cut : ± 10 ppm , ± 20 ppm or ± 30 ppm (max.) at 25°C SL-cut : ± 50 ppm (max.) at 25°C			
Frequency Stability	See Table 2			
Aging	△F / F : ±3 ppm / year (max.)			
Storage Temperature Range	- 50°C to 105°C			

Table 1

U1 & U1MJ ESR (Equivalent Series Resistance)					
Freq.(MHz)	E.S.R.	Osc. Mode	Freq.(MHz)	E.S.R.	Osc. Mode
1.0 ~ 1.2	5K Ω	SL , Fund.	11.0 ~ 12.9	40 Ω	AT , Fund.
6.0 ~ 6.9	100 Ω	AT , Fund.	13.0 ~ 45.0	25 Ω	
7.0 ~ 7.9	90 Ω		30.0 ~ 50.0	40 Ω	AT , 3rd
8.0 ~ 8.9	80 Ω		50.1 ~ 100.0	50 Ω	
9.0 ~ 10.9	90 Ω		80.0 ~ 200.0	80 Ω	AT , 5th

U5 & U5MJ ESR (Equivalent Series Resistance)					
Freq.(MHz)	E.S.R.	Osc. Mode	Freq.(MHz)	E.S.R.	Osc. Mode
10.0 ~ 11.9	60 Ω	AT , Fund.	35.1 ~ 90.0	60 Ω	AT , 3rd
12.0 ~ 14.9	50 Ω		90.1 ~ 135.0	40 Ω	
15.0 ~ 35.0	30 Ω		90.1 ~ 159.0	100 Ω	AT , 5th
			160.0 ~ 200.0	80 Ω	

Table 2

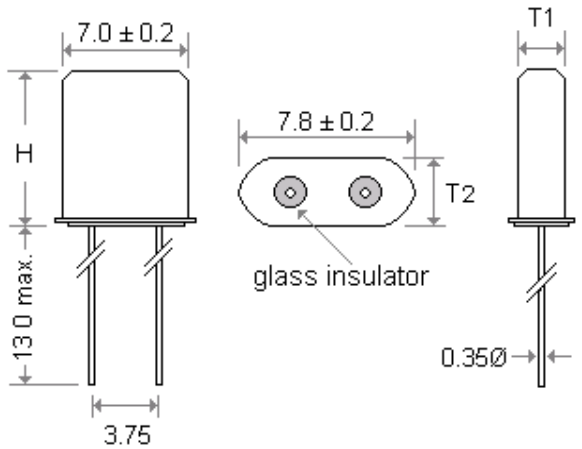
Frequency stability vs Operating temperature range									
Stability code	Temp. (ºC) \ ppm	± 5	± 10	± 15	± 20	± 25	± 30	± 50	± 100 (SL-cut)
X	-10 to 60°C	○	○	○	○	○	○	○	○
Y	-20 to 70°C	▲	○	○	○	○	○	○	○
I	-40 to 85°C		▲	○	○	○	○	○	○

○ : available

▲ : contact Mercury

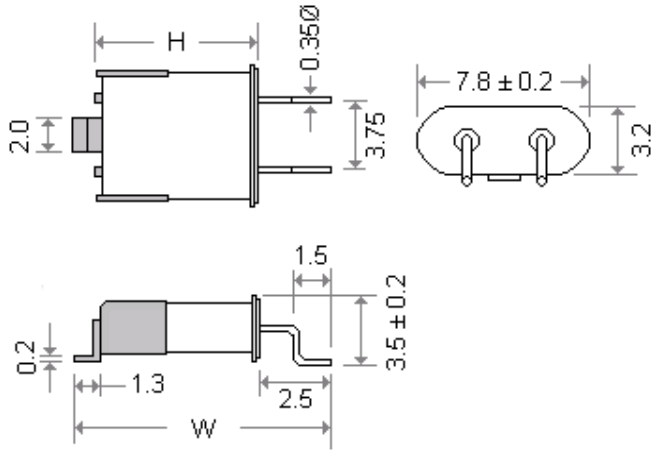
Outline Dimensions (Unit : mm)

Thru - Hole type (U1G , U5G)



	H	T1	T2
U1	8.0 ± 0.2	2.2 ± 0.2	3.2 ± 0.2
U5	6.0 ± 0.2	2.2 ± 0.2	3.2 ± 0.2

Metal jacket type (U1MJG , U5MJG)



	H	W
U1MJ	8.0 ± 0.2	11.8 ± 0.2
U5MJ	6.0 ± 0.2	9.8 ± 0.2

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