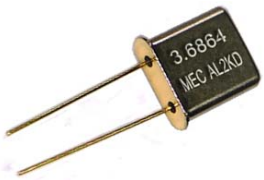
Quartz Crystal [Thru - Hole type] U1 series

Dip type
7.8 x 3.2 x 8.0 mm



RoHS Compliance

Applications

- A round shaped AT-Cut crystal plate inside.
- Available up to 200 MHz using a 5th overtone crystal mode
- Annealed and pre-aged for low frequency drift over a long-term operation

General Specifications	
Paramenters	Electrical Spec.
Item / Type	**U1** (7.8 * 3.2 * 8.0 mm)
Frequency Range	1.0 ~ 1.2 MHz , 6.0 ~ 200.0 MHz
Load Capacitance	Series or Parallel (8 to 32 pF) resonance
Drive Level	100μ W typical (500μ W max.)
Frequency Tolerance	AT-cut : ± 5 ppm , ± 10 ppm , ± 20 ppm or ± 30 ppm at 25°C SL-cut : ± 50 ppm 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)	Osc. Mode	E.S.R.	Freq.(MHz)	Osc. Mode	E.S.R.
1.0 ~ 1.2	SL , Fund.	5K Ω	11.0 ~ 12.9	AT , Fund.	40 Ω
6.0 ~ 6.9	AT , Fund.	100 Ω	13.0 ~ 45.0	AT , Fund.	25 Ω
7.0 ~ 7.9	AT , Fund.	90 Ω	30.0 ~ 50.0	AT , 3rd	40 Ω
8.0 ~ 8.9	AT , Fund.	80 Ω	50.1 ~ 100.0	AT , 3rd	50 Ω
9.0 ~ 10.9	AT , Fund.	90 Ω	80.0 ~ 200.0	AT , 5th	80 Ω

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

General Specifications (Unit : mm)

