



## Features

- > Resistance welded type crystal units.
- > A great number of standard frequencies .
- > High frequency pullability and low equivalent series resistance.
- > Lower cost and highly mass production capacity.
- > The best choice of PC, STB, LCDM, and Cable Modem.
- > RoHS Compliant / Pb Free.

### Electrical Specifications

Frequency Range	3.00 ~ 100.00 MHz
Load Capacitance	Series, 6~32 pF, or specify
Frequency Tolerance (at 25 °C)	±10, ±20, ±30 ppm, or specify
Frequency Stability Over Operating Temperature Range	±10, ±20, ±30 ppm, or specify
Operating Temperature Range	-20 ~ +70 °C, -40~+85 °C, or specify
Storage Temperature Range	-40 ~ +85 °C
Shunt Capacitance (C0)	7 pF Max.
Drive Level	1 ~ 1000 μW (100 μW typical)
Insulation Resistance	500 MΩ Minimum at 100VDC
Aging (at 25°C)	±3 ppm / year Max.

### Equivalent Series Resistance(ESR)

Frequency Range (MHz)	Mode	ESRΩ(MAX)
3.00 ~ 3.49	FUND	150
3.50 ~ 3.99	FUND	120
4.00 ~ 4.99	FUND	100
5.00 ~ 6.99	FUND	80
7.00 ~ 7.99	FUND	70
8.00 ~ 8.99	FUND	60
9.00 ~ 9.99	FUND	50
10.00 ~ 10.99	FUND	40
11.00 ~ 19.99	FUND	30
20.00 ~ 40.00	FUND	25
27.00 ~ 29.99	3RD	100
30.00 ~ 44.99	3RD	80
45.00 ~ 80.00	3RD	60

### Frequency Stability Over Operating Temperature Range

Temperature Range	Frequency Stability (ppm)						
	±3	±5	±7.5	±10	±15	±20	±30
0 ~ +50°C	*	*	*	*	*	*	*
-10 ~ +60°C		*	*	*	*	*	*
-20 ~ +70°C			*	*	*	*	*
-30 ~ +80°C				*	*	*	*
-40 ~ +85°C					*	*	*

### Dimensions

