

**Frequency Range:** 1MHz to 40MHz (fund)  
40MHz to 100MHz (3rd O/T)  
100MHz to 150MHz (5th O/T)  
150MHz to 180MHz (7th O/T)

**Calibration Tolerance:** ±50ppm (Standard p/n)  
(Option) ±10ppm to ±100ppm

**Frequency Stability:** ±100ppm (Standard p/n)  
(Option) ±10ppm to ±100ppm

**Temperature Range:** 0°C to 70°C (Standard p/n)  
(Option) -20°C to 70°C  
(Option) -40°C to 85°C

**Storage:** -55°C to 120°C

**Shunt Capacitance:** 7.0pF Max

**Drive Level:** 100uW Typical

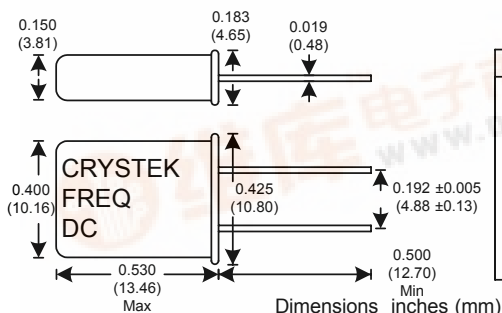
**ESR:** see table 1

## Standard part numbers

| Part number | Freq. (MHz) | CL         | Max ESR |
|-------------|-------------|------------|---------|
| CY1AM       | 1.000       | series     | 3000    |
| CD1AM       | 1.843200    | 13pF       | 700     |
| CY2AM       | 2.000       | series     | 500     |
| CY2AP       | 2.000       | 20pF       | 500     |
| CY2BM       | 2.457600    | 32pF       | 320     |
| CY3GM       | 3.000       | series     | 175     |
| CY3DM       | 3.579545    | 18pF       | 175     |
| CY3J        | 3.686400    | series     | 175     |
| CY3JM       | 3.686400    | 18pF       | 175     |
| CY3JN       | 3.686400    | 20pF       | 175     |
| CY3A        | 4.000       | series     | 100     |
| CY3AP       | 4.000       | 20pF       | 100     |
| CY4F        | 4.096       | 20pF       | 100     |
| CY4E        | 4.194304    | 12pF       | 75      |
| CY4D        | 4.915200    | series     | 75      |
| CY7A        | 5.000       | series     | 50      |
| CY7AP       | 5.000       | 20pF       | 50      |
| CY5B        | 5.068800    | series     | 50      |
| CY6B        | 6.000       | series     | 40      |
| CY6BP       | 6.000       | 20pF       | 40      |
| CY6C        | 6.144       | 30pF       | 40      |
| CY6CP       | 6.144       | 20pF       | 40      |
| CY6G        | 6.400       | 20pF       | 40      |
| CY7B        | 7.372800    | series     | 30      |
| CY7BP       | 7.372800    | 20pF       | 30      |
| CY8G        | 8.000       | series     | 30      |
| CY8GP       | 8.000       | 20pF       | 30      |
| CY8J        | 8.192       | series     | 30      |
| CY8JP       | 8.192       | 20pF       | 30      |
| CY9B        | 9.830400    | series     | 30      |
| CY12A       | 10.000      | series     | 30      |
| CY11B       | 11.059200   | series     | 30      |
| CY11BP      | 11.059200   | 20pF       | 30      |
| CY12B       | 12.000      | series     | 30      |
| CY12BP      | 12.000      | 20pF       | 30      |
| CY14A       | 14.318180   | series     | 30      |
| CY14AC      | 14.318180   | 18pF       | 30      |
| CY14AP      | 14.318180   | 20pF       | 30      |
| CY14B       | 14.745600   | series     | 30      |
| CY14BP      | 14.745600   | 20pF       | 30      |
| CY15A       | 15.000      | series     | 30      |
| CY16B       | 16.000      | series     | 30      |
| CY16BP      | 16.000      | 20pF       | 30      |
| CY19A       | 18.000      | series     | 30      |
| CY19B       | 18.432      | series     | 30      |
| CY19BP      | 18.432      | 20pF       | 30      |
| CY20A       | 19.660800   | series     | 30      |
| CY20AP      | 19.660800   | 20pF       | 30      |
| CY22A       | 20.000      | series     | 30      |
| CY22AP      | 20.000      | 20pF       | 30      |
| CY22B       | 22.118400   | series     | 30      |
| CY22BP      | 22.118400   | 20pF       | 30      |
| CY24A       | 24.000      | series     | 40      |
| CY24AP      | 24.000      | 20pF       | 40      |
| CY25A       | 25.000      | series     | 40      |
| CY27A       | 27.000      | 3RD series | 40      |
| CY30B       | 32.000      | 3RD series | 40      |
| CY36A       | 36.000      | 3RD series | 40      |
| CY48A       | 48.000      | 3RD series | 40      |
| CY100A      | 100.000     | 3RD series | 90      |

Options: Vinyl Sleeve, Spacer, Top Lead, Clipped Leads

**Aging:** <3ppm 1st/yr Max



| Resistance at series resonance |         |
|--------------------------------|---------|
| Freq. (MHz)                    | Max ESR |
| 3.5 - 4.0                      | 175     |
| 4.1 - 4.9                      | 100     |
| 5.0 - 5.9                      | 50      |
| 6.0 - 11.9                     | 40      |
| 12.0 - 22.9                    | 30      |
| 30.0 - 50.0                    | 40      |
| 50.1 - 100.0                   | 90      |
| 100.1 - 180.0                  | 120     |

Table 1

All dimensions are Max unless otherwise specified.

## Build Your Own P/N

CY X X X X X - Freq

\*\*Custom Designs Available

### Frequency Tolerance at 25°C

- 1 ±10 ppm
- 2 ±15 ppm
- 3 ±20 ppm
- 4 ±25 ppm
- 5 ±30 ppm
- 6 ±50 ppm
- 7 ±100 ppm

### Frequency Stability over Temp Range

|                         |                          |
|-------------------------|--------------------------|
| A ±10 ppm (0 to 70°C)   | J ±30ppm (-20 to 70°C)   |
| B ±15 ppm (0 to 70°C)   | K ±50 ppm (-20 to 70°C)  |
| C ±20 ppm (0 to 70°C)   | L ±100 ppm (-20 to 70°C) |
| D ±25 ppm (0 to 70°C)   | M ±20 ppm (-40 to 85°C)  |
| E ±30 ppm (0 to 70°C)   | N ±25 ppm (-40 to 85°C)  |
| F ±50 ppm (0 to 70°C)   | O ±30 ppm (-40 to 85°C)  |
| G ±100 ppm (0 to 70°C)  | P ±50 ppm (-40 to 85°C)  |
| H ±15 ppm (-20 to 70°C) | Q ±100 ppm (-40 to 85°C) |
| I ±20 ppm (-20 to 70°C) |                          |

### Load Capacitance

- 1 Series
- 2 14 pF
- 3 16 pF
- 4 18 pF
- 5 20 pF
- 6 22 pF
- 7 25 pF
- 8 32 pF

### Options

- S Spacer
- T Top Lead
- V Vinyl Sleeve

### Mode

- 1 Fundamental 1-40 MHz
- 3 3rd Overtone 40-100 MHz
- 5 5th Overtone 100-150MHz
- 7 7th Overtone 150-180MHz

Example:

CY4F51S-20.000 = ±25ppm at 25°C, ±50ppm 0 to 70°C, 20pF Load Cap, Fundamental, with Spacer, 20.000MHz

Specifications subject to change without notice.

TD-021008 Rev. D