



MINIATURE TUBULAR AT STRIP CRYSTALS - CY309 & CY310 Series

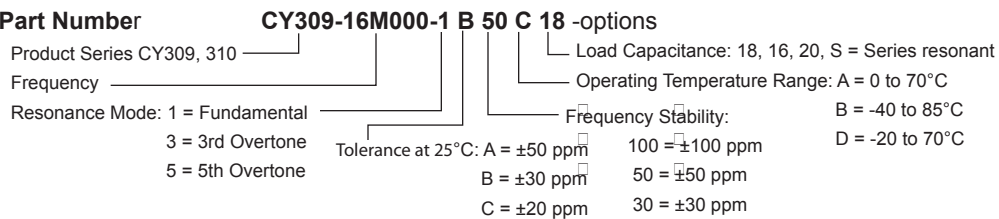
FEATURES

- RoHS Compliant (Pb-Free), Miniature Size with the Smallest Footprint of any Crystal Package
- AT-cut Characteristic, Excellent Aging, Extended Temperature Range
- Excellent Shock and Vibration Resistance
- Cost Effective

SPECIFICATIONS

| | |
|--------------------------------------|---|
| Frequency Range | CY310: 3.579545 MHz to 4.000 MHz; CY309: 4.000 MHz to 70.000 MHz |
| Package Option | CY310 = 3 x 10 mm cylindrical package; CY309 = 3 x 9 mm cylindrical package |
| Resonance Mode | 1 = Fundamental (3.5 to 30 MHz); 3 = 3rd Overtone (30.001 to 70 MHz) |
| Calibration Tolerance @25°C | A = ±50 ppm, Standard; B = ±30 ppm |
| Frequency Stability Ref @25°C | 100 = ±100 ppm; 50 = ±50 ppm; 30 = ±30 ppm |
| Temperature Range | A = 0°C to 70°C; B = -40°C to 85°C; C = -10°C to 60°C; D = -20°C to 70°C |
| Crystal Aging | ±5 ppm / year Maximum |
| Storage Temperature | -40°C to 85°C |
| Load Capacitance (CL) | CL = 18 pF (Standard), 16 pF, 20 pF, others, or S = Series resonant |
| Shunt Capacitance | 7 pF Maximum |
| Drive Level | 0.1 mW Maximum |

Creating a Part Number



Equivalent Series Resistance

| Frequency (MHz) | Mode | Max ESR (Ohms) |
|------------------|------|----------------|
| 3.579545 - 3.999 | Fund | 200 |
| 4.000 - 4.999 | Fund | 150 |
| 5.000 - 5.999 | Fund | 120 |
| 6.000 - 6.999 | Fund | 100 |
| 7.000 - 8.999 | Fund | 80 |
| 9.000 - 9.999 | Fund | 60 |
| 10.000 - 12.999 | Fund | 50 |

| Frequency (MHz) | Mode | Max ESR (Ohms) |
|-----------------|---------|----------------|
| 13.000 - 18.999 | Fund | 35 |
| 19.000 - 30.000 | Fund | 25 |
| 30.001 - 35.999 | 3rd O/T | 100 |
| 36.000 - 70.000 | 3rd O/T | 80 |

OUTLINE DRAWING

