- **2mm X 2.5mm 4 Pads Ceramic Package**
- **Ultra-miniature Profile**
- **RoHS Compliant**
- **Tape and Reel Packaging**

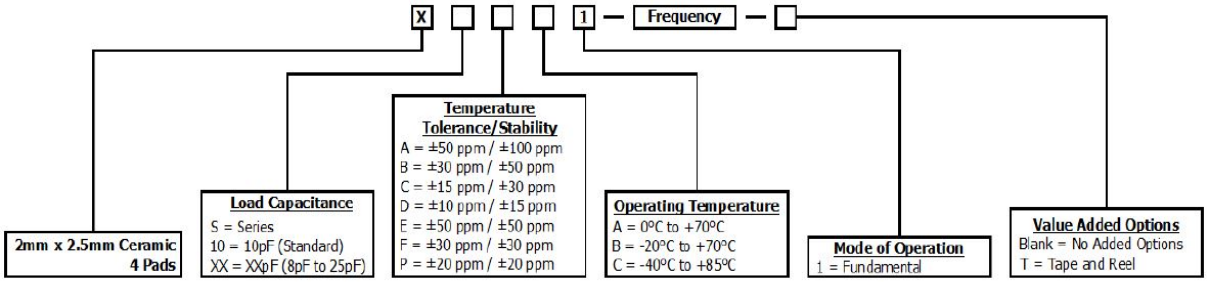
Electrical Specifications:

Frequency Range	16.000MHZ to 60.000MHZ
Frequency Tolerance / Stability	(See Part Number Guide for Options)
Operating Temperature Range	(See Part Number Guide for Options)
Storage Temperature	-40°C to +85°C
Aging	±2ppm / per year
Shunt Capacitance	3pF Maximum
Load Capacitance	(See Part Number Guide for Options)
Equivalent Series Resistance	See ESR Chart
Drive Level	100µW Maximum
Insulation Resistance	500 Mega ohms Minimum at 100VDC

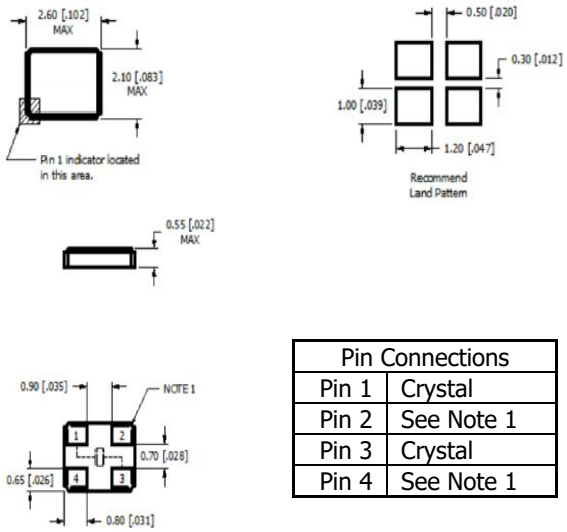
ESR Chart

Frequency Range	ESR (Ohms)	Mode / Cut
16.000MHZ to 19.999MHZ	120 Max	Fund / AT
20.000MHZ to 29.999MHZ	80 Max	Fund / AT
30.000MHZ to 60.000MHZ	50 Max	Fund / AT

Part Number Guide



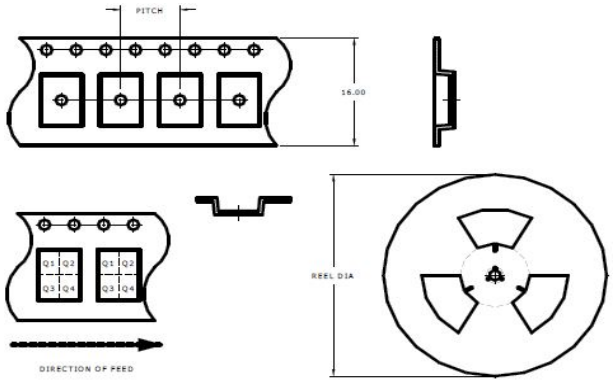
Mechanical Details



Pin Connections	
Pin 1	Crystal
Pin 2	See Note 1
Pin 3	Crystal
Pin 4	See Note 1

Notes:
1. Pin 2 and Pin 4 are internally connected and should not be connected to external sources for proper function.
2. Dimension in brackets are in inches.
3. Pads Matl:
   Base or under conductor thickness 1.3um to 8.8um.
   Final plating; Au(99.97%) less than 0.5 to 0.3um typ.

Tape & Reel Dimensions



PITCH	4.00 [0.157]
TAPE WIDTH	8.00 [0.315]
REEL DIA	180 [7.0]
COUNT	1000
PIN 1 ORIENT	Q1

Notes: UNLESS OTHERWISE SPECIFIED
1. Applicable Standards / Specifications ANSI Y14.5M, Dimensions and Tolerances EIA-481-B, 8mm through 200mm Embossed Carrier Tapping and 8mm and 12mm Punched Carrier Tapping of Surface Mount Components for Automatic Handling.
2. Dimensions are in millimetres [Inches].
3. Tolerances are ±0.1 [0.004] mm unless otherwise specified.
4. Do not scale drawing.

Mouser Electronics

Authorized Distributor

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ABRACON:
X12PB1-30.000MHZ-T X12PB1-24.000MHZ-T X18FC1-27.000MHZ-T X18FC1-20.000MHZ-T X18PB1-20.000MHZ-T X12FB1-24.000MHZ-T X18FC1-48.000MHZ-T X12FB1-40.000MHZ-T X18PB1-40.000MHZ-T X18FC1-16.000MHZ-T X18FB1-16.000MHZ-T X18FC1-32.000MHZ-T X18FB1-32.000MHZ-T X18FB1-20.000MHZ-T X18FC1-30.000MHZ-T X18FB1-48.000MHZ-T X18PB1-27.000MHZ-T X12FB1-16.000MHZ-T X12PB1-48.000MHZ-T X12PB1-20.000MHZ-T X12FB1-25.000MHZ-T X12PB1-40.000MHZ-T X18PB1-25.000MHZ-T X12FB1-20.000MHZ-T X12FB1-27.000MHZ-T X12FC1-40.000MHZ-T X18FB1-40.000MHZ-T X12FC1-24.000MHZ-T X12FC1-48.000MHZ-T X18PB1-16.000MHZ-T X18FB1-27.000MHZ-T X12PB1-27.000MHZ-T X18FC1-40.000MHZ-T X18FC1-24.000MHZ-T X18PB1-24.000MHZ-T X18FB1-25.000MHZ-T X12FC1-27.000MHZ-T X12FC1-32.000MHZ-T X12FC1-16.000MHZ-T X12PB1-32.000MHZ-T X18PB1-32.000MHZ-T X18FC1-25.000MHZ-T X12PB1-16.000MHZ-T X12FC1-30.000MHZ-T X18PB1-30.000MHZ-T X12FC1-20.000MHZ-T X18PB1-48.000MHZ-T X12FB1-32.000MHZ-T X12PB1-25.000MHZ-T X12FB1-30.000MHZ-T X18FB1-24.000MHZ-T X18FB1-30.000MHZ-T X12FC1-25.000MHZ-T X10CB1-16.000MHZ-T X10CB1-16.3676MHZ-T X10CB1-16.384MHZ-T X10CB1-18.432MHZ-T X10CB1-26.000MHZ-T X10CB1-27.000MHZ-T X10CB1-30.000MHZ-T X10CB1-32.000MHZ-T X10CB1-40.000MHZ-T X10CB1-48.000MHZ-T X10CB1-19.200MHZ-T X10CB1-20.000MHZ-T X10CB1-22.1184MHZ-T X10CB1-24.000MHZ-T X10CB1-24.576MHZ-T X10CB1-25.000MHZ-T