

2 Pad Ceramic Package Quartz Crystal, 3.2 mm x 5.0 mm

ILCX03 Series

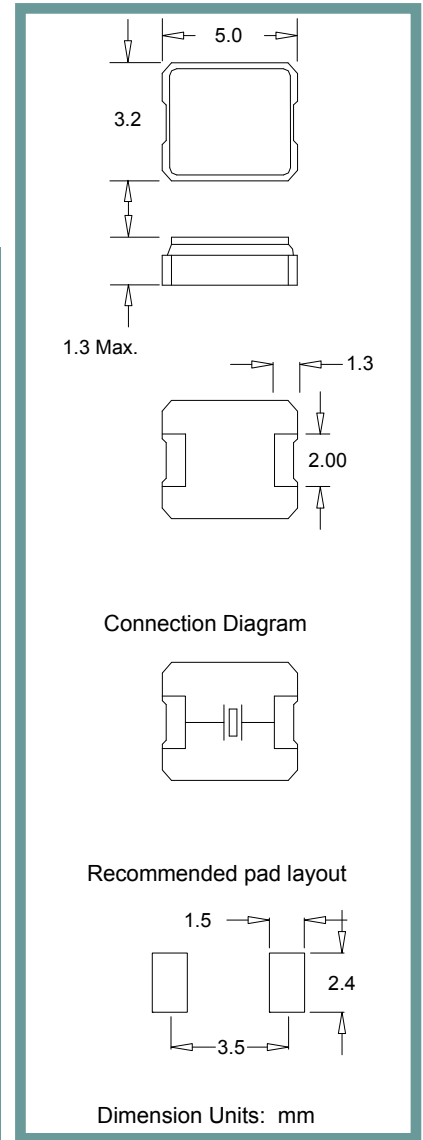
Product Features:

- Low Cost SMD Package
- Low ESR
- Compatible with Leadfree Processing

Applications:

- Fibre Channel
- Server & Storage
- Sonet /SDH
- 802.11 / Wifi
- T1/E1, T3/E3

Frequency	8.000 MHz to 150.000 MHz
ESR (Equivalent Series Resistance)	
8.000 MHz – 12.000 MHz	80 Ω Max.
12.000 MHz – 16.000 MHz	60 Ω Max.
16.000 MHz – 20.000 MHz	50 Ω Max.
20.000 MHz – 24.000 MHz	40 Ω Max.
24.000 MHz – 40.000 MHz	30 Ω Max.
40.000 MHz – 60.000 MHz (3 rd O.T.)	100 Ω Max.
60.000 MHz – 150.000 MHz (3 rd O.T.)	80 Ω Max.
Shunt Capacitance (C0)	7 pF Max.
Frequency Tolerance @ 25° C	±30 ppm Standard (see Part Number Guide for more options)
Frequency Stability over Temperature	±50 ppm Standard (see Part Number Guide for more options)
Crystal Cut	AT Cut
Load Capacitance	18 pF Standard (see Part Number Guide for more options)
Drive Level	100 μW Max.
Aging	±3 ppm Max. / Year Standard
Temperature	
Operating	0° C to +70° C Standard (see Part Number Guide for more options)
Storage	-40° C to +85° C Standard



Part Number Guide		Sample Part Number: ILCX03 - FB1F18 - 20.000				
Package	Tolerance (ppm) at Room Temperature	Stability (ppm) over Operating Temperature	Operating Temperature Range	Mode (overtone)	Load Capacitance (pF)	Frequency
ILCX03 -	B = ±50 ppm	B = ±50 ppm	0 = 0°C to +50°C	F = Fundamental	18 pF Standard. Or Specify	- 20.000 MHz
	F = ±30 ppm	F = ±30 ppm	1 = 0°C to +70°C	3 = 3 rd overtone		
	G = ±25 ppm	G = ±25 ppm	2 = -10°C to +60°C			
	H = ±20 ppm	H = ±20 ppm	3 = -20°C to +70°C			
	I = ±15 ppm	I = ±15 ppm**	5 = -40°C to +85°C			
	J = ±10 ppm*	J = ±10 ppm**	9 = -10°C to +50°C			

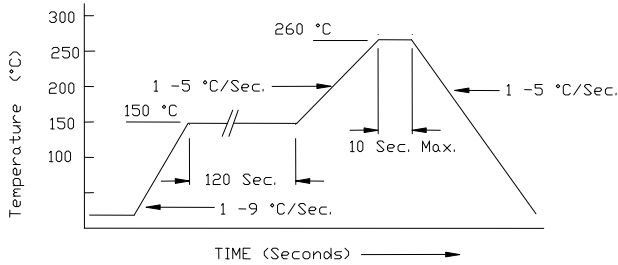
* Not available at all frequencies. ** Not available for all temperature ranges.

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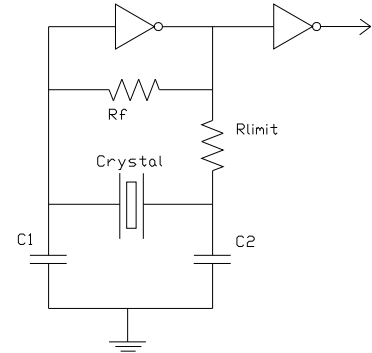
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Pb Free Solder Reflow Profile:

Typical Circuit:



*Units are backward compatible with 240C reflow processes

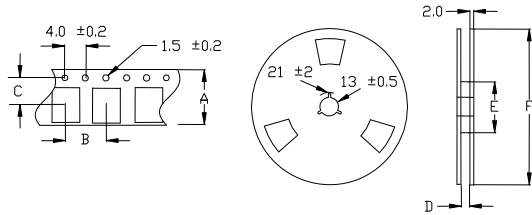


Package Information:

MSL = 1

Termination = e4 (Au over Ni over W base metal).

Tape and Reel Information:



Quantity per Reel	1000 or 3000
A	12 +/- .3
B	8 +/- .2
C	5.5 +/- .2
D	13.5 +/- .1 or 12 +/- .3
E	60 / 80
F	180 / 250

Environmental Specifications

Thermal Shock	MIL-STD-883, Method 1011, Condition A
Moisture Resistance	MIL-STD-883, Method 1004
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Mechanical Vibration	MIL-STD-883, Method 2007, Condition A
Resistance to Soldering Heat	J-STD-020C, Table 5-2 Pb-free devices (except 2 cycles max)
Hazardous Substance	Pb-Free / RoHS / Green Compliant
Solderability	JESD22-B102-D Method 2 (Preconditioning E)
Gross Leak	MIL-STD-883, Method 1014, Condition C
Fine Leak	MIL-STD-883, Method 1014, Condition A2, R1=2x10 ⁻⁸ atm cc/s
Solvent Resistance	MIL-STD-202, Method 215

Marking

Line 1: I-Date Code (yww)

Line 2: XXXX