Product Features:

Low Cost SMD Package
Low ESR
Compatible with Leadfree Processing

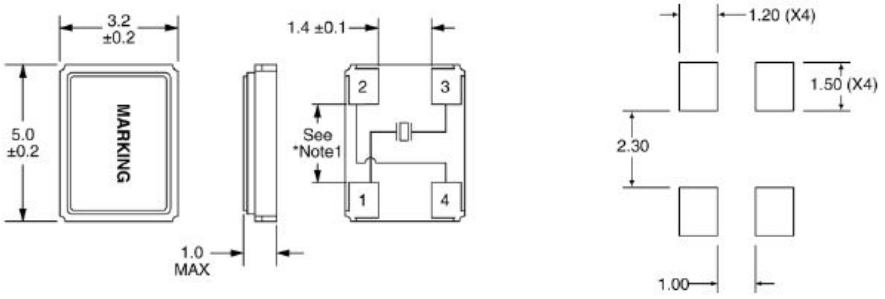
Applications:

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

Electrical Specifications:

Frequency	8MHz to 150MHz
Equivalent Series Resistance **Fundamental** 8MHz – 9.999999MHz 10MHz – 11.999999MHz 12MHz – 15.999999MHz 16MHz – 19.999999MHz 20MHz – 23.999999MHz 24MHz – 50MHz **Third Overtone** 30MHz – 150MHz	 100 Ohms Maximum 80 Ohms Maximum 60 Ohms Maximum 50 Ohms Maximum 40 Ohms Maximum 30 Ohms Maximum 80 Ohms Maximum
Shunt Capacitance (C0)	5pF Maximum
Frequency Tolerance (at 25°C)	±50ppm, ±30ppm, ±25ppm, ±20ppm, ±15ppm, or ±10ppm
Frequency Stability (over Temperature)	±50ppm, ±30ppm, ±25ppm, ±20ppm, ±15ppm, or ±10ppm
Mode of Operation 8MHz – 50MHz 30MHz – 150MHz	 Fundamental Third Overtone
Crystal Cut	AT Cut
Load Capacitance	8pF to 32pF or Specify
Drive Level	100µW Maximum
Aging	±5ppm/Year Maximum
Operating Temperature Range	See Part Number Guide
Storage Temperature Range	-40°C to +85°C

Mechanical and Solder Pad Dimensions:



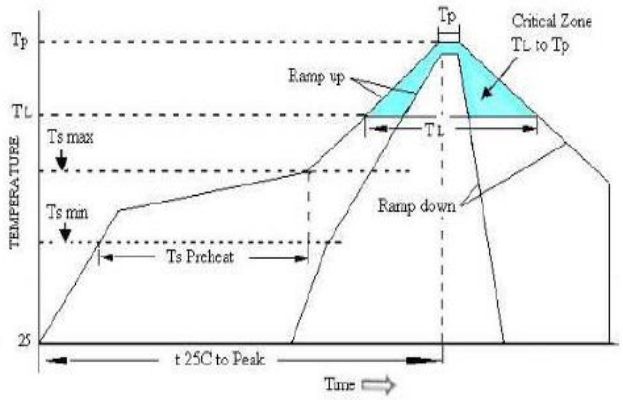
Pin Connections	
Pin 1	Crystal
Pin 2	Cover/Ground
Pin 3	Crystal
Pin 4	Cover/Ground

Dimension Units: mm
Note: Chamfer not shown
*Note 1: 2.6±0.1mm (<=10MHz)
2.4±0.1mm (>10MHz)

Part Number Guide	Sample Part Number: ILCX07 – FB1F18 – 20.000 MHz					
Package	**Frequency Tolerance**	**Frequency Stability**	**Operating Temperature Range**	**Mode of Operations**	**Load Capacitance**	**Frequency**
ILCX07 -	B = ±50ppm	B = ±50ppm	0 = 0°C to +50°C	F = Fundamental	8pF to 32pF or Specify	20.000 MHz
	F = ±30ppm	F = ±30ppm	1 = 0°C to +70°C	3 = Third Overtone		
	G = ±25ppm	G = ±25ppm	2 = -10°C to +60°C			
	H = ±20ppm	H = ±20ppm	3 = -20°C to +70°C			
	I = ±15ppm	I = ±15ppm*, **	5 = -40°C to +85°C			
	J = ±10ppm*	J = ±10ppm*, **	9 = -10°C to +50°C			
			D = -10°C to +105°C*			
			E = -40°C to +105°C*			

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

Pb Free Solder Reflow Profile:



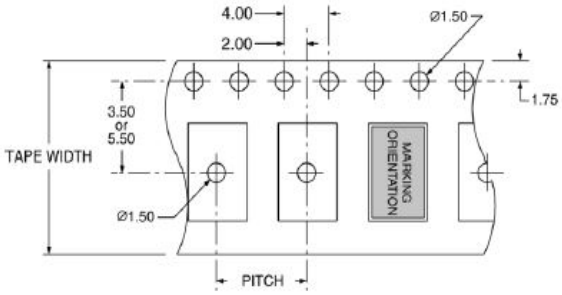
Ts max to T_L (Ramp-up Rate)	3ºC / second max
Preheat Temperature min (Ts min) Temperature typ (Ts typ) Temperature max (Ts max) Time (Ts)	 150ºC 175ºC 200ºC 60 to180 seconds
Ramp-up Rate (T_L to Tp)	3ºC / second max
Time Maintained Above Temperature (T_L) Time (T_L)	 217ºC 60 to 150 seconds
Peak Temperature (Tp)	260ºC max for 10 seconds
Time within 5ºC to Peak Temperature (Tp)	20 to 40 seconds
Ramp-down Rate	6ºC / second max
Tune 25ºC to Peak Temperature	8 minutes max

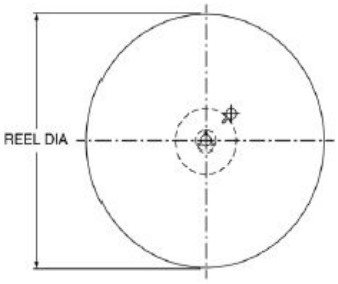
*Units are backward compatible with +240°C reflow processes

Package Information:

MSL = 1 (package does not contain plastic, storage life is unlimited under normal room conditions).
Termination = e4 (Au over Ni over W base metallization).

Tape and Reel Information:





PITCH	8.00
TAPE WIDTH	12.00
REEL DIA	180
QTY PER REEL	1,000

Dimensions Units: mm