

ILCX13 Series



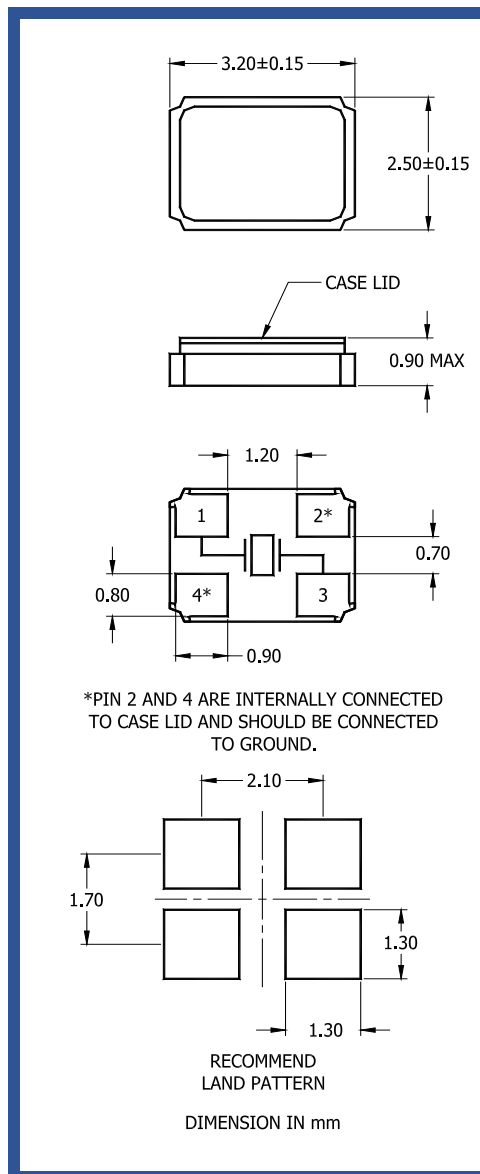
Product Feature:

SMD Package
Small package Foot Print
Supplied in Tape and Reel
Compatible with Leadfree Processing

Applications:

PCMCIA Cards
Storage
PC's
Wireless Lan

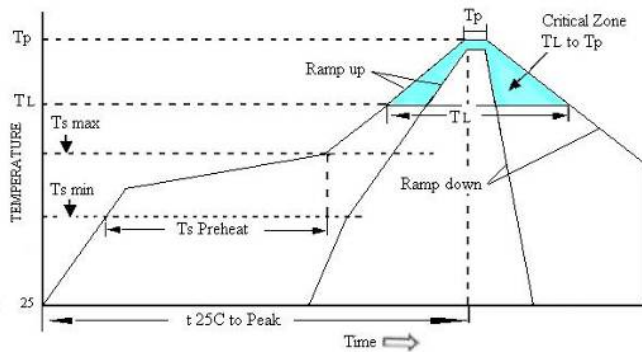
Frequency	10 MHz to 150 MHz
ESR (Equivalent Series Resistance)	250 Ohms Maximum 100 Ohms Maximum 80 Ohms Maximum 60 Ohms Maximum 40 Ohms Maximum 100 Ohms Maximum
10.0 MHz – 11.9 MHz	250 Ohms Maximum
12.0 MHz – 15.6 MHz	100 Ohms Maximum
16.0 MHz – 19.9 MHz	80 Ohms Maximum
20.0 MHz – 23.9 MHz	60 Ohms Maximum
24.0 MHz – 60.0 MHz	40 Ohms Maximum
60.0 MHz – 150.0 MHz (3 rd O/T)	100 Ohms Maximum
Shunt Capacitance (C0)	3.5pF Maximum
Frequency Tolerance @ 25° C	(See Part Number Guide)
Frequency Stability over Temperature	(See Part Number Guide)
Crystal Cut	AT Cut
Load Capacitance	8pF to 32pF or Specify
Drive Level	100µW Maximum
Aging	±3ppm/Year Maximum
Operating Temperature Range	(See Part Number Guide)
Storage Temperature Range	-40°C to +85°C



Part Number Guide		Sample Part Number: ILCX13 - FB1F18 - 20.000000 MHz				
Package	Tolerance (ppm) at Room Temperature	Stability (ppm) over Operating Temperature	Operating Temperature Range	Mode (overtone)	Load Capacitance (pF)	Frequency
ILCX13 -	B = ±50 ppm	B = ±50 ppm	0 = 0°C to +50°C	F = Fundamental	8pF to 32pF 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			
			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:



Units are backward compatible with 240C reflow processes

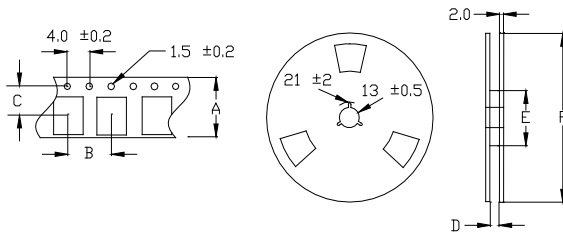
Ts max to TL (Ramp-up Rate)	3°C / second max
Preheat	
Temperature min (Ts min)	150°C
Temperature typ (Ts typ)	175°C
Temperature max (Ts max)	200°C
Time (Ts)	60 to 180 seconds
Ramp-up Rate (TL to Tp)	3°C / second max
Time Maintained Above Temperature (TL)	217°C
Time (TL)	60 to 150 seconds
Peak Temperature (Tp)	260°C max for 10 seconds
Time within 5°C to Peak Temperature (Tp)	20 to 40 seconds
Ramp-down Rate	6°C / second max
Time 25°C to Peak Temperature	8 minutes max

Package Information:

MSL = 1

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

Tape and Reel Information:



Quantity per Reel	3000
A	8.0 ±0.2
B	4.0 ±0.2
C	3.5 ±0.2
D	12.0 ±3.0
E	60 / 80
F	180