# **CFPX-86 CRYSTALS**

# ISSUE 1; 7 OCTOBER 1999

# Recommended For New Designs

# **Delivery Options**

Please contact our sales office for current leadtimes

#### Holder Style

CFPX-86 surface mount crystals are plastic encapsulated

# **General Specifications**

- Load Capacitance (C<sub>L</sub>): 10pF to 50pF or Series
- Drive Level:100µW max

# **Standard Frequencies**

3.579545MHz, 3.68640MHz, 4.0MHz,
4.91520MHz, 6.0MHz, 7.37280MHz, 8.0MHz,
10.0MHz, 12.0MHz, 14.318180MHz, 16.0MHz,
18.4320MHz, 20.0MHz

# Standard Frequency Tolerances and Stabilities

■ ±50ppm, ±100ppm

# **Standard Operating Temperature Ranges**

■ -10 to 60°C

-20 to 70°C

#### Storage Temperature Range

■ -55 to 125°C

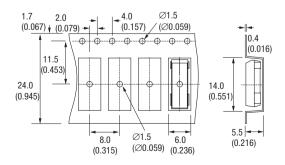
# Marking

■ Frequency only

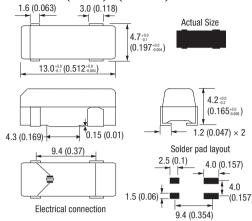
# **Minimum Order Information Required**

Frequency + Holder + Frequency Tolerance @ 25°C
+ Frequency Stability + Operating Temperature
Range + Circuit Condition

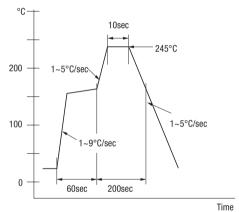
# Outline in mm (inches) - Tape



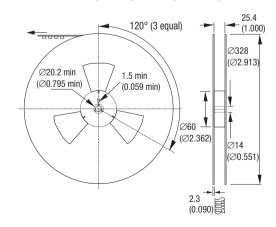
# Outline in mm (inches) - (scale 2:1)



# Typical Solder Condition - Infrared Reflow



#### Outline in mm (inches) - Reel (scale 1:8)



# **Electrical Specification - maximum limiting values**

Frequency Range	Frequency Tolerance @ 25°C ±2°C	Operating Temperature Range	Frequency Stability Available Over Operating Temperature		ESR Max	Vibration Mode
			Minimum	Maximum		
3.570 to < 4.0MHz	±10ppm to ±100ppm	0 to 50°C	±10ppm	±100ppm	200Ω	Fundamenta
		−10 to 60°C	±20ppm			
		–20 to 70°C	±30ppm			
		–40 to 90°C	±50ppm	±150ppm		
4.0 to < 5.0MHz	±10ppm to ±100ppm	0 to 50°C	±10ppm	±100ppm	150Ω	Fundamenta
		−10 to 60°C	±20ppm			
		–20 to 70°C	±30ppm			
		–40 to 90°C	±50ppm	±150ppm		
5.0 to < 10.0MHz	±10ppm to ±100ppm	0 to 50°C	±10ppm	±100ppm	120Ω	Fundamenta
		−10 to 60°C	±20ppm			
		–20 to 70°C	±30ppm			
		–40 to 90°C	±50ppm	±150ppm		
10.0 to < 16.0MHz	±10ppm to ±100ppm	0 to 50°C	±10ppm	±100ppm	60Ω	Fundamenta
		−10 to 60°C	±20ppm			
		–20 to 70°C	±30ppm			
		–40 to 90°C	±50ppm	±150ppm		
16.0 to < 26.0MHz	±10ppm to ±100ppm	0 to 50°C	±10ppm	±100ppm	50Ω	Fundamenta
		−10 to 60°C	±20ppm			
		–20 to 70°C	±30ppm			
		–40 to 90°C	±50ppm	±150ppm		
26.0 to 33.0MHz	±10ppm to ±100ppm	0 to 50°C	±10ppm	±100ppm	40Ω	Fundamenta
		−10 to 60°C	±20ppm			
		–20 to 70°C	±30ppm			
		–40 to 90°C	±50ppm	±150ppm		
30.0 to < 45.0MHz	±10ppm to ±100ppm	–10 to 60°C	±100ppm	_	100Ω	Fundamenta BT Cut
		–20 to 70°C	±100ppm			
32.0 to 60.0MHz	±10ppm to ±100ppm	0 to 50°C	±10ppm	±100ppm	100Ω	3rd Overtone
		−10 to 60°C	±20ppm			
		–20 to 70°C	±30ppm			
		-40 to 90°C	±50ppm	±150ppm		