

# IXA12 Series



Powered By ABRACON

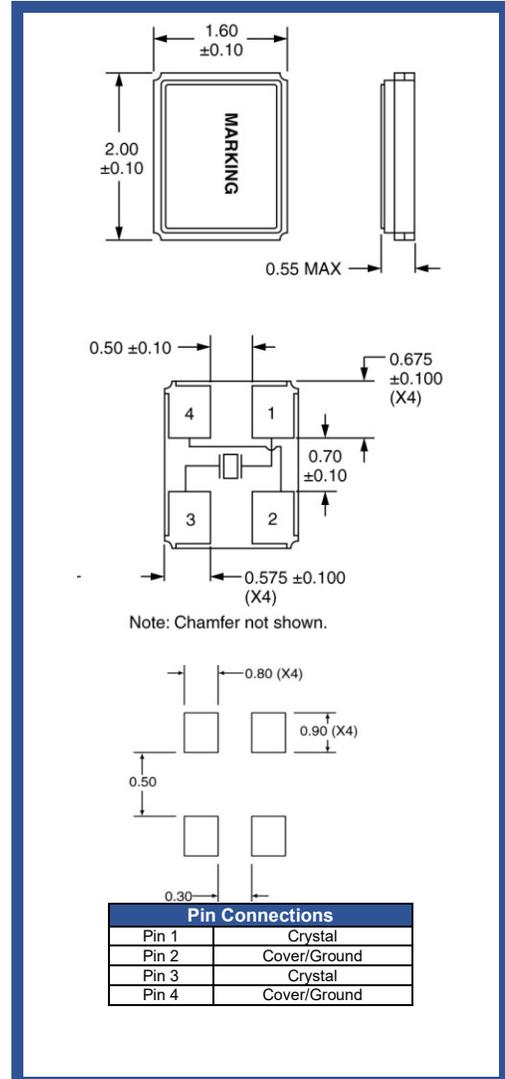
### Product Feature:

AEC-Q200 Qualified  
IATF 16949 certified production lines  
RoHS and REACH compliant  
Suitable for use in harsh environments

### Applications:

Navigation, GPS  
Infotainment System  
Instrument Panel, Ethernet  
ADAS Radar, Camera,  
Engine Control Units  
Lidar Systems TPMS

<b>Frequency</b>	16MHz to 54MHz
<b>Equivalent Series Resistance</b>	200 Ohms Maximum 120 Ohms Maximum 100 Ohms Maximum 60 Ohms Maximum
16MHz – 19.999999MHz	200 Ohms Maximum
20MHz – 24.999999MHz	120 Ohms Maximum
25MHz – 39.999999MHz	100 Ohms Maximum
40MHz – 54MHz	60 Ohms Maximum
<b>Shunt Capacitance (C0)</b>	3pF Maximum
<b>Frequency Tolerance (at 25°C)</b>	±50ppm, ±30ppm, ±25ppm, ±20ppm, ±15ppm, or ±10ppm
<b>Frequency Stability (over Temperature)</b>	±100ppm, ±50ppm, ±30ppm, or ±20ppm
<b>Mode of Operation</b>	Fundamental
<b>Crystal Cut</b>	AT Cut
<b>Load Capacitance</b>	8pF to 32pF or Specify
<b>Drive Level</b>	100µWatts Maximum
<b>Aging</b>	±3ppm/Year Maximum
<b>Operating Temperature Range</b>	-40°C to +85°C, -40°C to +105°C, or -40°C to +125°C
<b>Storage Temperature Range</b>	-50°C to +150°C



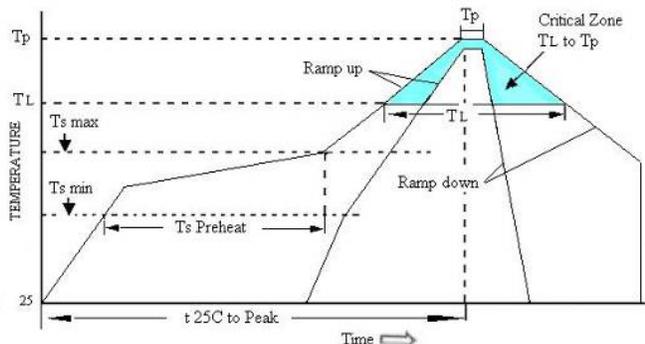
Part Number Guide		Sample Part Number: IXA12-FBDF18- 20.000 MHz				
Package	Tolerance (ppm) at Room Temperature	Stability (ppm) over Operating Temperature	Operating Temperature Range	Mode (overtone)	Load Capacitance (pF)	Frequency
IXA12-	B = ±50 ppm	A = ±100 ppm	5 = -40°C to +85°C	F = Fundamental	8pF to 32pF Or Specify	- 32.000 MHz
	F = ±30 ppm	B = ±50 ppm	D = -40°C to +105°C			
	G = ±25 ppm	F = ±30 ppm*, **	F = -40°C to +125°C			
	H = ±20 ppm	H = ±20 ppm*, ***				
	I = ±15 ppm					
	J = ±10 ppm*					

\* Not available at all frequencies.

\*\* Not available for Operating Temperature Range Option F.

\*\*\* Not available for Operating Temperature Range Option D or F.

## Pb Free Solder Reflow Profile:



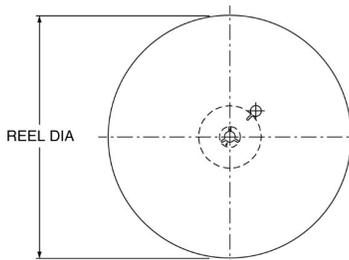
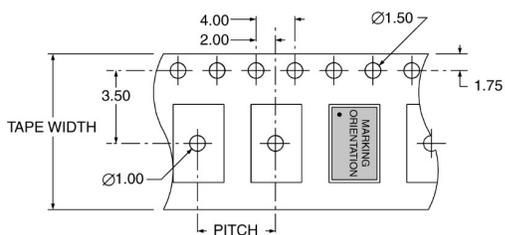
Units are backward compatible with 240C reflow processes

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

## Tape and Reel Information:



Quantity per Reel	3000
Pitch	4.00
Tape Width	8.00
Reel DIA	180

## Environmental Specifications:

Mechanical Shock	MIL-STD-202, Method 213
Vibration	MIL-STD-202, Method 204
Resistance to Soldering Heat	MIL-STD-202, Method 210
Solderability	J-STD-002
Gross Leak	MIL-STD-883, Method 1014, Condition C
Fine Leak	MIL-STD-883, Method 1014, Condition A2