



4 Pad Ceramic Package Quartz Crystal, 3.2mm x 2.5mm



IXA16 Series

Product Features:

AEC – Q200 qualified
IATF 16949 certified production lines
RoHS and REACH compliant
Suitable for use in harsh environments
Extended operating temperature range: -40°C to +125°C

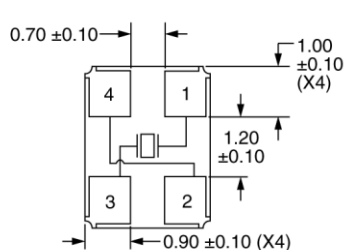
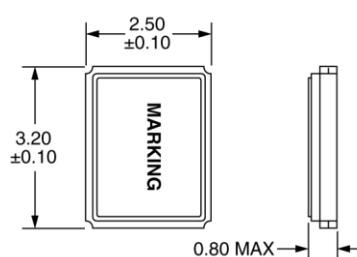
Applications:

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

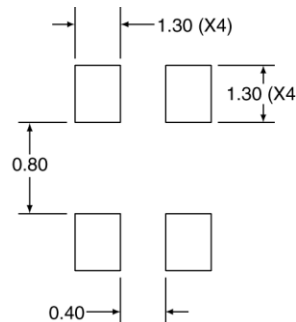
Electrical Specifications

Frequency	8MHz to 66MHz
Equivalent Series Resistance 8MHz – 9.999999MHz 10MHz – 10.999999MHz 11MHz – 11.999999MHz 12MHz – 12.999999MHz 13MHz – 15.999999MHz 16MHz – 20.999999MHz 21MHz – 29.999999MHz 30MHz – 66MHz	800 Ohms Maximum 250 Ohms Maximum 150 Ohms Maximum 100 Ohms Maximum 80 Ohms Maximum 70 Ohms Maximum 60 Ohms Maximum 50 Ohms Maximum
Shunt Capacitance (C0)	3pF Maximum
Frequency Tolerance (at 25°C)	±50ppm, ±30ppm, ±25ppm, ±20ppm, ±15ppm, or ±10ppm
Frequency Stability (over Temperature)	±100ppm, ±50ppm, ±30ppm, or ±20ppm
Mode of Operation	Fundamental
Crystal Cut	AT Cut
Load Capacitance	8pF to 32pF or Specify
Drive Level	200µW Maximum
Aging	±3ppm/Year Maximum
Operating Temperature Range	-40°C to +85°C, -40°C to +105°C, or -40°C to +125°C
Storage Temperature Range	-50°C to +150°C

Mechanical and Solder Pad Dimensions



Note: Chamfer not shown.



Pin	Connection
1	Crystal
2	Cover/Ground
3	Crystal
4	No Connect

All Dimensions in Millimeters

Part Number Guide

Sample Part Number: IXA16 – FBDF18 - 25.000 MHz						
Package	Frequency Tolerance	Frequency Stability	Operating Temperature Range	Mode of Operations	Load Capacitance	Frequency
IXA16 -	B = ±50ppm	A = ±100ppm	5 = -40°C to +85°C	F = Fundamental	8pF to 32pF or Specify	- 25.000 MHz
	F = ±30ppm	B = ±50ppm	D = -40°C to +105°C			
	G = ±25ppm	F = ±30ppm*, **	F = -40°C to +125°C			
	H = ±20ppm	H = ±20ppm*, **				
	I = ±15ppm					
	J = ±10ppm					

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

**QUALITY SYSTEM
CERTIFIED
= ISO 9001 =**

ILSI America Phone 775-851-8880 • Fax 775-851-8882 • email: e-mail@ilsiamerica.com •

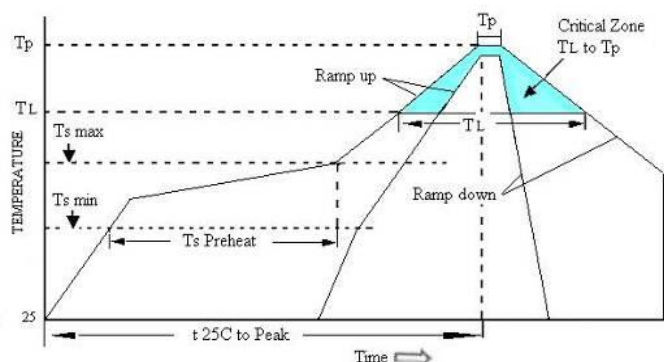
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Specifications subject to change without notice

Rev: 02/09/18_A

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Pb Free Solder Reflow Profile:



Units are backward compatible with +240°C reflow processes

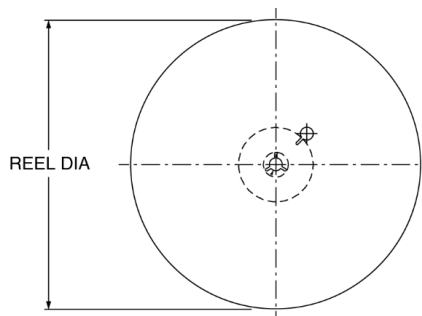
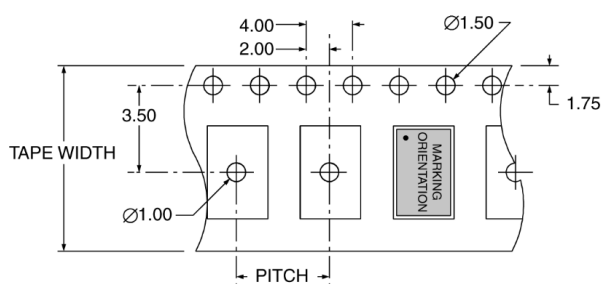
Ts max to T_L (Ramp-up Rate)	3°C / second max
Preheat	
Temperature min (T_s min)	150°C
Temperature typ (T_s typ)	175°C
Temperature max (T_s max)	200°C
Time (T_s)	60 to 180 seconds
Ramp-up Rate (T_L to T_p)	3°C / second max
Time Maintained Above Temperature (T_L)	217°C
Time (T_L)	60 to 150 seconds
Peak Temperature (T_p)	260°C max for 10 seconds
Time within 5°C to Peak Temperature (T_p)	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 metallization)

Tape and Reel Information:



PITCH	4.00
TAPE WIDTH	8.00
REEL DIA	180
QTY PER REEL	3,000

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

Marking:

Line 1: Frequency (XX.XX)

Line 2: Date Code (YWW)