

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

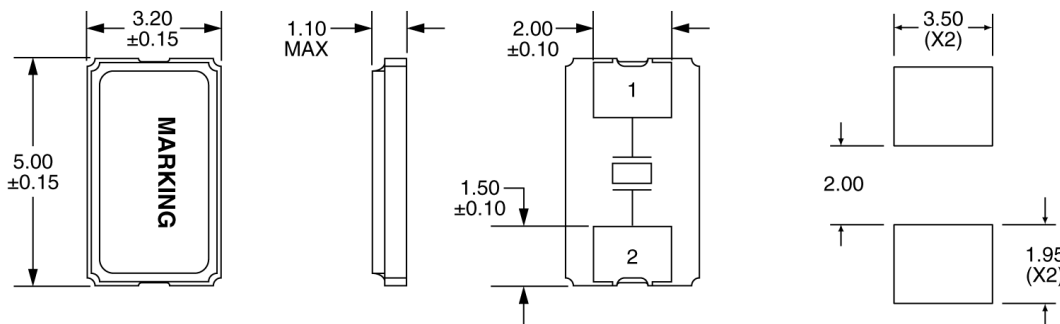
Applications:

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

Electrical Specifications

Frequency	7.6MHz to 54MHz
Equivalent Series Resistance 7.6MHz – 11.999999MHz 12MHz – 13.999999MHz 14MHz – 19.999999MHz 20MHz – 54MHz	100 Ohms Maximum 60 Ohms Maximum 50 Ohms Maximum 40 Ohms Maximum
Shunt Capacitance (C0)	5pF 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	300µWatts 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



Pin	Connection
1	Crystal
2	Crystal

Note: Chamfer not shown.

All Dimensions in Millimeters

Part Number Guide

Sample Part Number: IXA18 – FBDF18 - 25.000 MHz

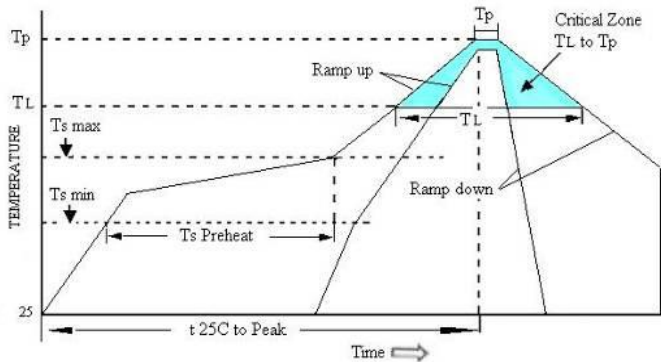
Package	Frequency Tolerance	Frequency Stability	Operating Temperature Range	Mode of Operations	Load Capacitance	Frequency
IXA18 -	B = ±50ppm	A = ±100ppm	5 = -40°C to +85°C	F = Fundamental	8pF to 32pF or Specify	- 25.000 MHz
	F = ±30ppm	B = ±50ppm	D = -40°C to +105°C			
	G = ±25ppm	F = ±30ppm*, **	F = -40°C to +125°C			
	H = ±20ppm	H = ±20ppm*, ***				
	I = ±15ppm					
	J = ±10ppm					

* Not available at all frequencies.

** Not available for Operating Temperature Range option F.

*** Not available for Operating Temperature Range option D or F.

Pb Free Solder Reflow Profile:



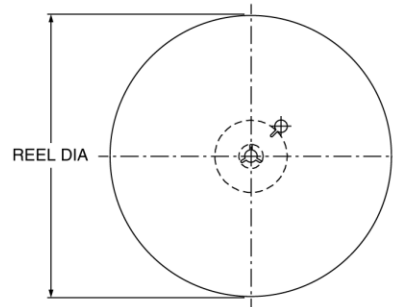
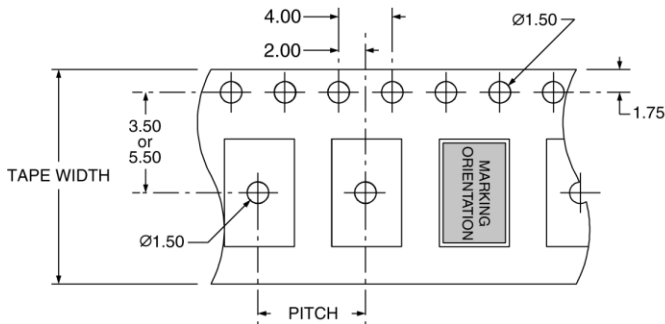
Units are backward compatible with +240°C reflow processes

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 metallization)

Tape and Reel Information:



PITCH	4.00
TAPE WIDTH	12.00
REEL DIA	180
QTY PER REEL	1,000

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)