

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



Product Features:

AEC – Q200 qualified TS16949 certified production lines RoHS and REACH compliant Suitable for use in harsh environments Extended operating temperature range: -40°C to +125°C

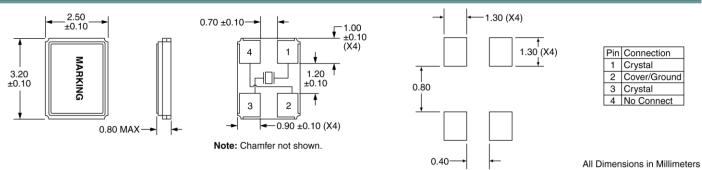
Applications:

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	800 Ohms Maximum
10MHz – 10.999999MHz	250 Ohms Maximum
11MHz – 11.999999MHz	150 Ohms Maximum
12MHz – 12.999999MHz	100 Ohms Maximum
13MHz – 15.999999MHz	80 Ohms Maximum
16MHz – 20.999999MHz	70 Ohms Maximum
21MHz – 29.999999MHz	60 Ohms Maximum
30MHz – 66MHz	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



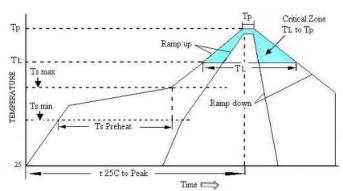
Part Number Guide

	Sample Part Number: IXA16 – FBDF18 - 25.000 MHz						
Package	Frequency Tolerance	Frequency Stability	Operating Temperature Range	Mode of Operations	Load Capacitance	Frequency	
	B = ±50ppm	$A = \pm 100 ppm$	5 = -40°C to +85°C	F = Fundamental	8pF to 32pF or Specify	- 25.000 MHz	
	F = ±30ppm	$B = \pm 50$ ppm	D = -40°C to +105°C				
17/4/10	G = ±25ppm	F = ±30ppm*, **	F = -40°C to +125°C				
IXA16 -	H = ±20ppm	H = ±20ppm*, **					
	I = ±15ppm						
	J = ±10ppm						

^{*} Not available at all frequencies. ** Not available for all temperature ranges.



Pb Free Solder Reflow Profile:



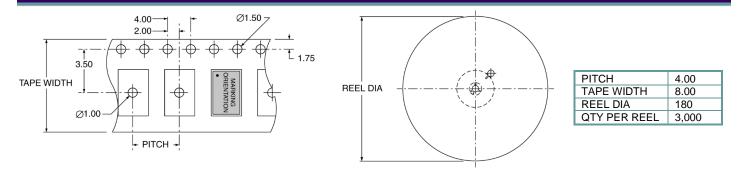
Units are backward com	npatible with +240°C reflow	processes

Ts max to T _L (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 to180 seconds	
Ramp-up Tate (T _L to Tp	3°C / second max	
Time Maintained Above		
Temperature (T _L)	217°C	
Time (T _{L)}	60 to 150 seconds	
Dook Tomporature (Tp)	260°C max for 10	
Peak Temperature (Tp)	seconds	
Time within 5°C to Peak	20 to 40 seconds	
Temperature (Tp)	20 to 40 seconds	
Ramp-down Rate	6°C / second max	
Tune 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:



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)