

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

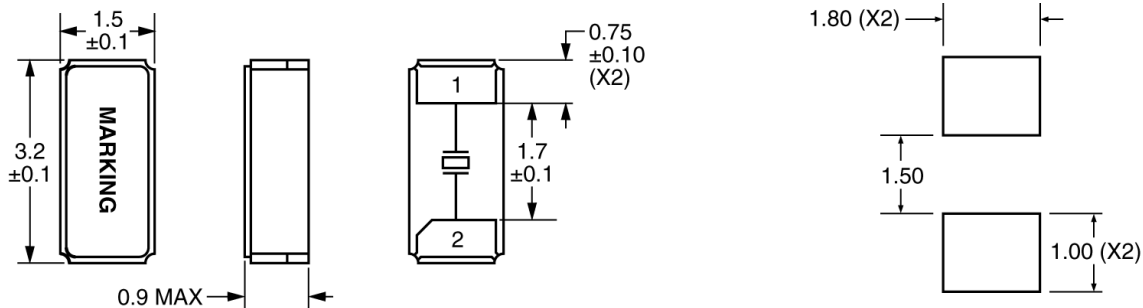
Applications:

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

Electrical Specifications

Frequency	32.768kHz
Equivalent Series Resistance	70 kOhms Maximum
Shunt Capacitance (C0)	1pF Typical
Motional Capacitance (C1)	3fF Typical
Frequency Tolerance (at 25°C)	±20ppm Maximum
Frequency Stability Temperature Coefficient	Parabolic -0.034ppm/(Change in °C) ² Typical
Turnover Temperature	25°C ±5°C
Mode of Operation	Fundamental
Crystal Cut	X Cut
Load Capacitance	6pF, 7pF, 9pF, or 12.5pF
Drive Level	1µW Maximum
Aging	±3ppm/Year Maximum
Operating Temperature Range	-40°C to +125°C
Storage Temperature Range	-55°C to +125°C

Mechanical and Solder Pad Dimensions

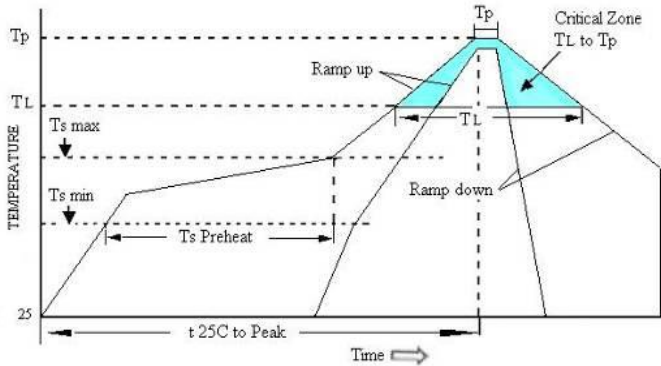


All Dimensions in Millimeters

Part Number Guide

Sample Part Number: IXA24 – HXFF12.5 -32.768 kHz						
Package	Frequency Tolerance	Frequency Stability	Operating Temperature Range	Mode of Operations	Load Capacitance	Frequency
IXA24 -	H = ±20ppm	X = X Cut	F = -40°C to +125°C	F = Fundamental	6 = 6pF 7 = 7pF 9 = 9pF 12.5 = 12.5pF	- 32.768 kHz

Pb Free Solder Reflow Profile:



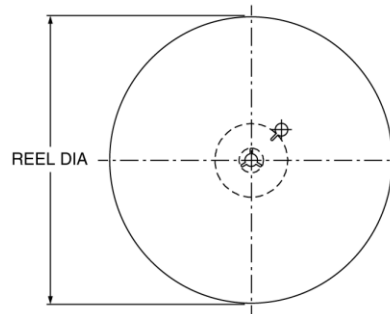
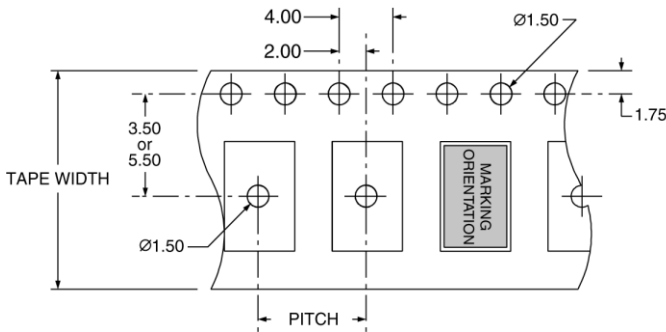
Units are backward compatible with +240°C reflow processes

Ts max to T _L (Ramp-up Rate)	3°C / second max
Preheat	
Temperature min (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 (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	12.00
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: XXXXYM (XXXX = Manufacturer Designator; Y = Year; M = Month)