

2 Pad Ceramic Base SMD Crystal, 1.6 mm x 1.0 mm

IL3W Series

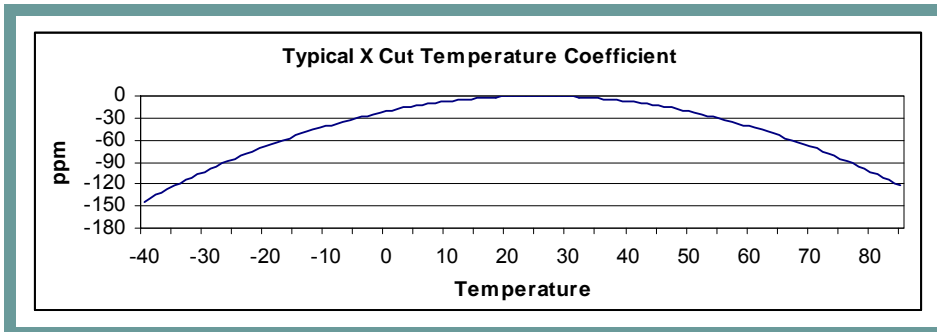
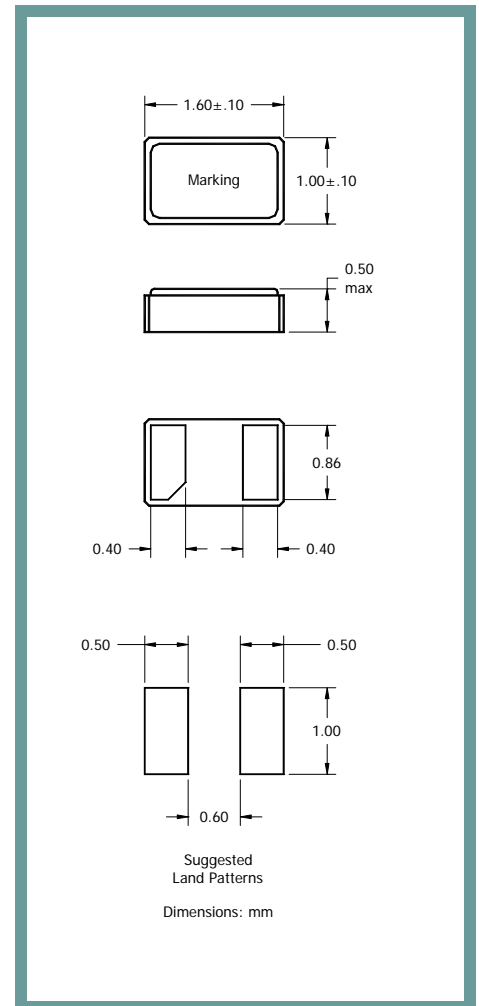
Product Features:

Low Cost SMD Package
RoHS Compliant
Compatible with Leadfree Processing
Ultra Low Profile

Applications:

Real Time Clocks
Metering
Industrial Control
Time Reference

Frequency	32.768 KHz
ESR (Equivalent Series Resistance)	90 kΩ Max
Shunt Capacitance (C0)	2.0 pF Max.
Motional Capacitance (C1)	6.5fF Typ.
Frequency Tolerance @ 25° C ±5°C	±20 ppm Standard
Frequency Stability over Temperature	Parabolic -0.045 ppm / ° C ² Typ. Turnover point +25° ±5°C See Graph Below
Crystal Cut	X-Cut
Load Capacitance	12.5 pF Standard (see table below)
Drive Level	0.1 μW typ, 0.5 μW max
Aging	±3 ppm Max. / Year Standard
Temperature	
Operating	-40° C to +85° C Standard
Storage	-55° C to +125° C Standard



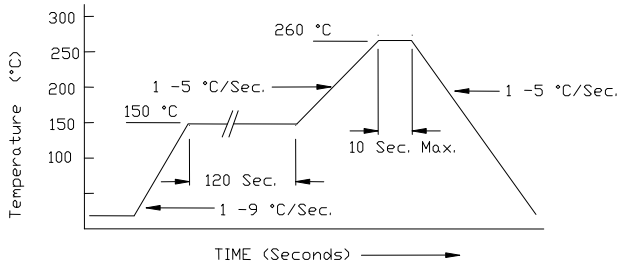
Part Number Guide		Sample Part Number: IL3W - HX5F12.5 - 32.768 KHz				
Package	Stability (ppm) at Room Temperature	Stability (ppm) over Operating Temperature	Operating Temperature Range	Mode (overtone)	Load Capacitance (pF)	Frequency
IL3W -	H = ±20 ppm	X = X Cut	5 = -40°C to +85°C	F = Fundamental	12.5 pF (Standard) 9.0 pF or 7.0 pF	- 32.768 KHz

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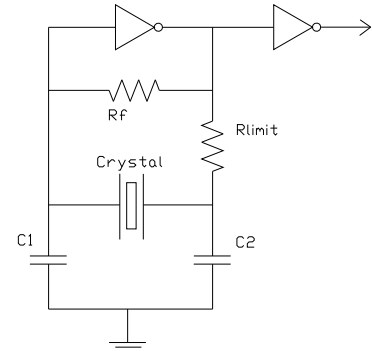
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Pb Free Solder Reflow Profile:

Typical Circuit:



*Units are backward compatible with 240C reflow processes

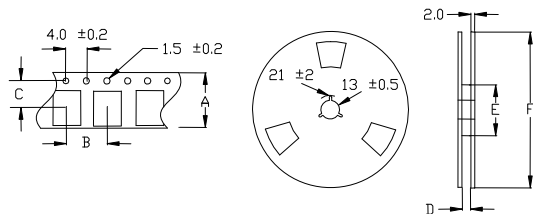


Package Information:

MSL = 1

Termination = e4 (Au over Ni over W base metal)

Tape and Reel Information:



Quantity per Reel	5000
A	8.0 ±0.2
B	4.0 ±0.1
C	3.5 ±0.05
D	9.0 ±0.3
E	60 / 80
F	180 / 250

Environmental Specifications

Thermal Shock	MIL-STD-883, Method 1011, Condition A
Moisture Resistance	MIL-STD-883, Method 1004
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Mechanical Vibration	MIL-STD-883, Method 2007, Condition A
Resistance to Soldering Heat	J-STD-020C, Table 5-2 Pb-free devices (except 2 cycles max)
Hazardous Substance	Pb-Free / RoHS / Green Compliant
Solderability	JESD22-B102-D Method 2 (Preconditioning E)
Terminal Strength	MIL-STD-883, Method 2004, Test Condition D
Gross Leak	MIL-STD-883, Method 1014, Condition C
Fine Leak	MIL-STD-883, Method 1014, Condition A2, R1=2x10 ⁻⁸ atm cc/s
Solvent Resistance	MIL-STD-202, Method 215

Marking

Line 1: Frequency, Date Code