

Precision Low Profile TO-8 SC Crystal

CONNOR WINFIELD



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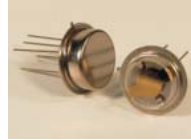
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Description

Connor-Winfield's precision SC crystals are designed for high frequency stability ovenized applications. The SC crystals are capable of achieving <math><5\text{ppb}/^\circ\text{C}</math> at turning point. The low profile coldweld package allows for very low aging performance in a reduced size.



Features

Model: 37420-xxxx-Series

Frequency Range: 8.192 to 32 MHz

Frequency Calibration @ 85°C:

+/-1.0ppm

Aging: ppb / Day

Package: TO-8, 0.200" High

Designed for 0 to 70°C Ovenized Applications

RoHS Compliant / Lead Free

General Specifications

ABSOLUTE MAXIMUM RATINGS

TABLE 1.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Storage Temperature		-55	-	105	°C	

ELECTRICAL SPECIFICATIONS

TABLE 2.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Center Frequency	(Fo)	8.192	-	32.0	MHz	
Frequency Calibration @ 85°C		-1.0	-	1.0	ppm	See Table 4
Lower Turning Point		78	-	94	°C	
Inflection Temperature		-	-	96	°C	
Mode			3 rd Overtone			
Shunt Capacitance		-	-	5	pF	
Equivalent Series Resistance (ESR)		-	See Table 4			
Load Capacitance		-	20	-	pF	
Drive Level		-	-	100	u Watts	
Aging			0.5ppb / Day			
Q:			Dependant on Frequency			

PACKAGE CHARACTERISTICS

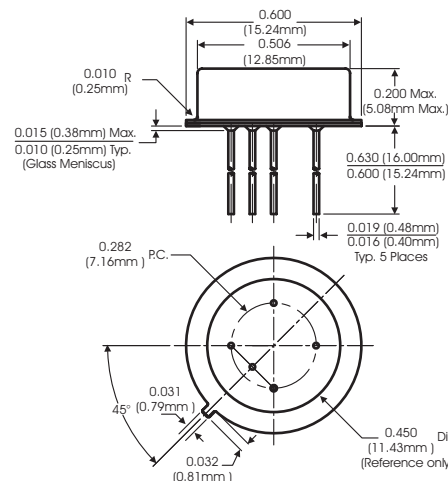
TABLE 3.0

Package	Hermetically Sealed Cold welded HC-37/u (TO-8) Package.
Leak Rate	0.01ppm atm. cc/sec. maximum
Marking	Marking consists of a serial number label with 5 digits followed by a letter to provide correlation between the serial number and the turning point data.

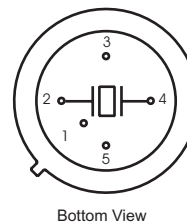
FREQUENCY RANGE, ESR, AND CALIBRATION @ 85°C

Frequency Range	Equivalent Series Resistance (ESR)	Frequency Calibration @ 85°C
8.192 MHz to 9.999 MHz	90 Ohms	+/-1ppm
10 MHz to 12.999 MHz	85 Ohms	+/-1ppm
13 MHz to 19.999 MHz	80 Ohms	+/-1ppm
20 MHz to 32 MHz	75 Ohms	+/-2ppm

Package Outline

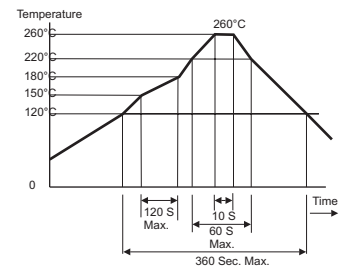


Pin Connections



Pin	Connection
1	Case
2	Crystal Connection
3	N/C
4	Crystal Connection
5	N/C

Solder Profile



Part Number

37420 - xxxx - xxx.xM
 TO-8 SC Cut Specification (CW Assigned) Frequency (Mhz)



Bulletin Xt217

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Revision 01

Date 04 Aug 2008