

# Precision Low Profile TO-5 SC Crystal

# CONNOR WINFIELD



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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: 36420-xxx-Series**

Frequency Range: 20 to 100 Mhz

Frequency Calibration @ 85°C:

+/-1.0ppm

Aging: ppb / Day

Package: TO-5 Coldweld, 0.200" High

Designed for 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)	20.0	-	100.0	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 <sup>rd</sup> Overtone			
Shunt Capacitance		-	-	5	pF	
Equivalent Series Resistance (ESR)		-	See Table 4			
Load Capacitance		-	20	-	pF	
Drive Level		-	-	100	u Watts	
Aging			1x10 <sup>-9</sup> / Day @ 20 MHz			
Q:			Dependant on Frequency			

### PACKAGE CHARACTERISTICS

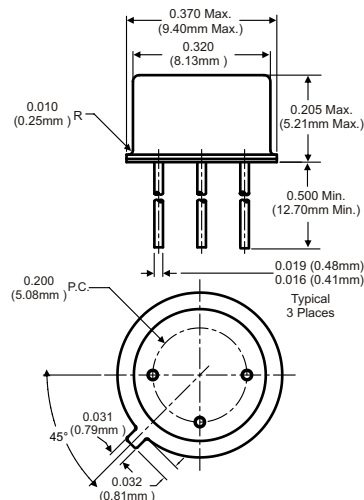
TABLE 3.0

Package	Hermetically Sealed Cold welded HC-35/u (TO-5) Package.
Leak Rate	0.01ppm atm. cc/sec. maximum

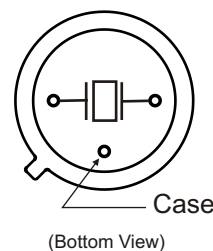
TABLE 4.0

Frequency Range	Equivalent Series Resistance (ESR)	Frequency Calibration @ 85°C
20 MHz to 29.999 MHz	100 Ohms	+/-1ppm
30 MHz to 49.999 MHz	90 Ohms	+/-2ppm
50 MHz to 79.999 MHz	80 Ohms	+/-3ppm
80 MHz to 100 MHz	80 Ohms	+/-4ppm

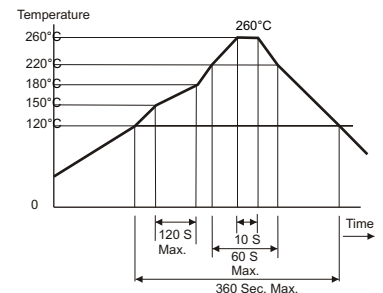
## Package Outline



## Pin Connections



## Solder Profile



## Part Number

**36420 - xxxx - xxx.xM**

TO-5 SC Cut Specification (CW Assigned) Frequency (Mhz)

Bulletin Xt216

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