

# CS-018 and CS-023 3.2x2.5mm Crystal Resonator



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## Description:

The Connor-Winfield CS-018 and CS-023 are a 3.2x2.5mm surface mount AT-cut 3rd Overtone crystals. They are used as reference crystals in many frequency synthesizer and PLL applications.

## Features:

- Frequency: 114.285 MHz
- Frequency Calibration:  $\pm 20$ ppm
- Frequency Stability:  
CS-018:  $\pm 100$  ppm  
CS-023:  $\pm 20$ ppm
- Temperature Range: -40 to 85°C
- Surface Mount Package
- Tape and Reel Packaging
- RoHS Compliant / Lead Free

## Electrical Specifications

Parameter	Minimum	Nominal	Maximum	Units	Notes
Output Frequency (Fo)	-	114.285	-	MHz	
Calibration Tolerance @ 25°C					
Model CS-018	-100	-	100	ppm	
Model CS-023	-20	-	20	ppm	
Frequency Stability vs. Change in Temperature					
Model CS-018	-100	-	100	ppm	
Model CS-023	-20	-	20	ppm	
Operating Temperature Range:	-40	-	85	°C	
Operation Mode	3rd Overtone				
Cut	AT Cut				
Aging	-3	-	3	ppm/Year	
Shunt Capacitance: (Co)	-	-	2.5pF	pF	
Load Capacitance: (CL)	-	18	-	pF	
Equivalent Series Resistance @ 25 °C	-	-	80	Ohms	
Drive Level	-	100	200	uW	
Insulation Resistance	-	500	-	Mohm	@ 100 Vdc
Storage Temperature:	-55	-	125	°C	

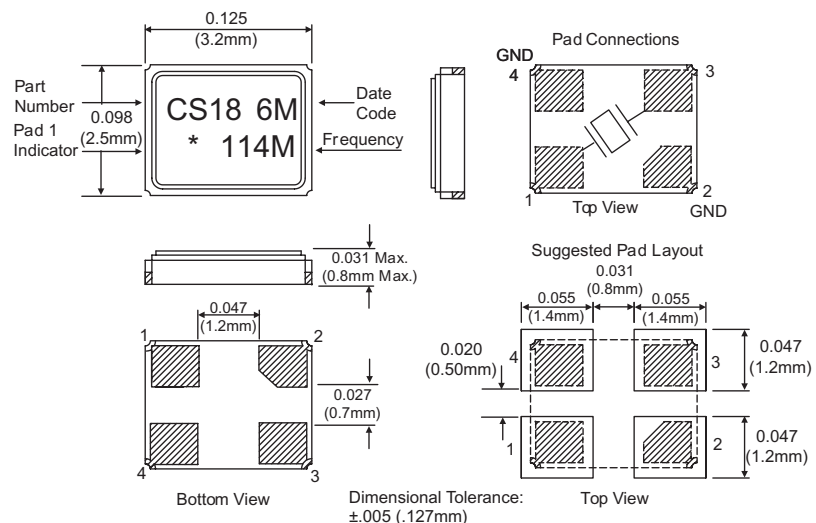
## Package Characteristics

Package	Hermetically sealed ceramic 3.2x2.5mm SMD Package.
Leakage	0.01ppm atm, cc/sec. maximum

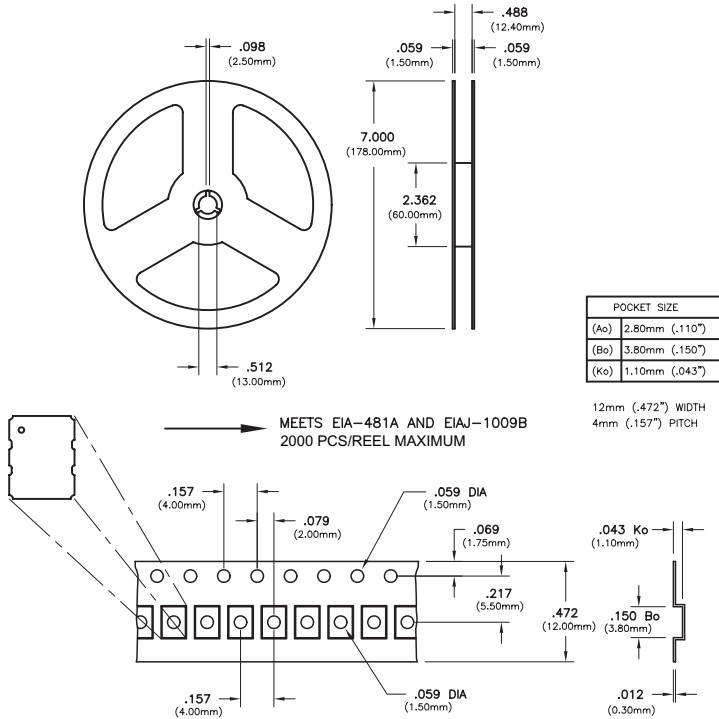
## Ordering Information

CS-018-114.285M
CS-023-114.285M

## Package Outline



## Tape and Reel Information



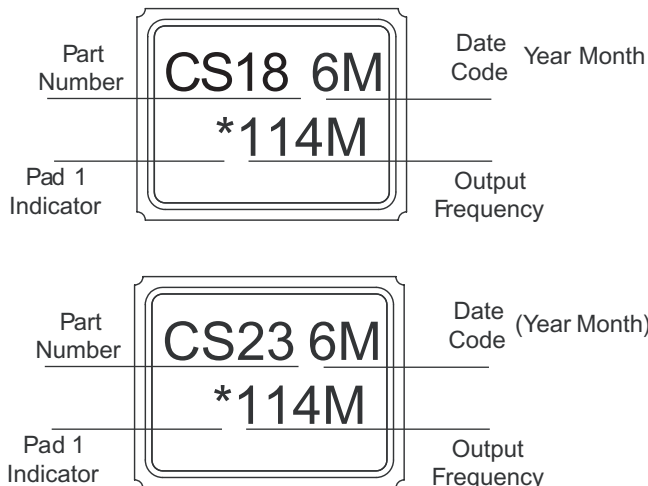
## Date Code Information

2 Character Date Code

Year Code	Month Code
3 = 2013	A = January
4 = 2014	B = February
5 = 2015	C = March
6 = 2016	D = April
7 = 2017	E = May
8 = 2018	F = June
9 = 2019	G = July
0 = 2020	H = August
1 = 2021	J = September
2 = 2022	K = October
	M = November
	N = December

Date Code Example: 9G  
9 = 2019, G = July

## Marking Information



## Solder Profile

