

# 49U DIP Type Crystal

Think SAW, Think STRONG!

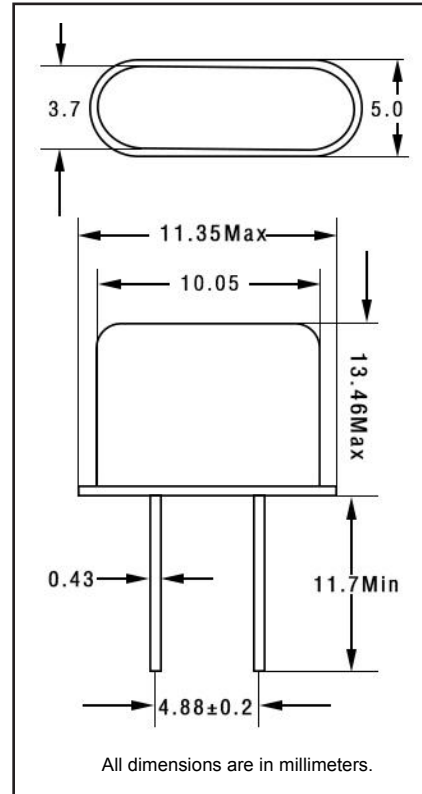


## DATASHEET

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High reliability by means of resistance weld hermetic seal.  
 Excellent aging characteristics.  
 RoHS compliant and lead free.

• C4ST STANDARD SPECIFICATIONS	
PARAMETERS	MAX (unless otherwise noted)
Frequency Range	1.8432~48.0MHz(F) 26.0 ~ 90.0MHz(3OT) 80.0 ~ 176.0MHz(5OT)
Frequency Tolerance @ 25°C	-/+10ppm , -/+30ppm , or specify
Frequency Stability, ref @ 25°C	(See options below)
Temperature Range	
Operating (TOPR)	(See options below)
Storage (TSTG)	-55°C ~ +105°C
Shunt Capacitance (Co)	7pF
Load Capacitance (CL)	16pF, 18pF, 20pF, or specify
Drive Level	0.5 mW (0.1 mW Typical)
Aging per year	±2 PPM ± 5PPM
Maximum Soldering Temp / Time	260°C / 10 Seconds
Moisture Sensitivity Level (MSL)	1
Termination Finish	Sn/Ag/Cu
Seam Method	Resistance Weld
Lead (Pb) Free	Yes
RoHS Compliant	Yes



Note: Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, etc. may vary. All specifications subject to change without notice.

Frequency Range (MHz)	Operating Mode	Max ESR Ω
1.8432	Fundamental	500
2.0~2.9	Fundamental	350
3.1~3.0	Fundamental	200
3.2~3.9	Fundamental	150
4.0~4.4	Fundamental	100
4.5~4.9	Fundamental	80
5.0~6.9	Fundamental	50
7.0~9.9	Fundamenta	35
10.0~48.0	Fundamenta	25
26.0~90.0	3rd	70
80.0~176.0	5th	120

### • Available Operating Temperatures and Stabilities\*

Operating Temperature	±5 PPM	±10 PPM	±15 PPM	±20 PPM	±25 PPM	±30 PPM	±50 PPM	±100 PPM
-10°C to +60°C	O	O	O	O	O	O	O	O
-20°C to +70°C	Δ	O	O	O	O	O	O	O
-40°C to +85°C	X	O	O	O	O	O	O	O
-40°C to +105°C	X	X	X	X	X	Δ	O	O
-40°C to +125°C	X	X	X	X	X	X	Δ	O
-55°C to +125°C	X	X	X	X	X	X	Δ	O

Key: O=Available, X=Not Available, Δ=Consult STRONG Technical Support  
 \*Does not imply a stocked part.

# Thru-Hole Crystal

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### Available Options & Part Identification for Thru-Hole Crystal C4ST\*

#### 49U-1.8432M-20-30-30-A

49U	1.8432M	20	C	B	F	T&R
<b>Package</b>	<b>Frequency (MHz)</b>	<b>Load Capacitance</b> S=Series 10=10pF 12=12pF 16=16pF 18=18pF 20=20pF 22=22pF 27=27pF 30=30pF 32=32pF 33=33pF	<b>Tolerance</b> 50=50ppm 30=30ppm 25=25ppm 20=20ppm 15=15ppm 10=10ppm	<b>Stability</b> 100=100ppm 50=50ppm 30=30ppm 25=25ppm 20=20ppm 15=15ppm 10=10ppm 5=5ppm	<b>Operating Temperature</b> A= 0 ~ +60 °C B= -10 ~ +60 °C C= -10 ~ +70 °C D= -20 ~ +70 °C E= -40 ~ +85 °C F= -55 ~ +105 °C D= -55 ~ +125 °C G= -55 ~ +125 °C	<b>Tape&amp;Reel</b> T&R Or Blank

\*Not all frequency, tolerance, stability, load, and operating temperature combinations may be available.



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