## 49U DIP Type Crystal



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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	$\pm 2 \text{ PPM} \pm 5 \text{PPM}$				
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				

Frequency Range (MHz)	Operating Mode	Max ESR $\Omega$	
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	



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.

## 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	0	0	0	0	0	0	0	0
-20°C to +70°C	Δ	0	0	0	0	0	0	0
-40°C to +85°C	Х	0	0	0	0	0	0	0
-40°C to +105°C	Х	Х	Х	X	X	Δ	0	0
-40°C to +125°C	Х	Х	Х	Х	Х	Х	Δ	0
-55°C to +125°C	Х	Х	Х	Х	Х	Х	Δ	0

Key: O=Available, X=Not Available,  $\Delta$ =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* <u>49U-1.8432M-20-30-30-A</u>						
49U	1.8432M	20	С	В	F	T&R
<u>Packa</u> ge	Frequency <u>(MHz)</u>	Load <u>Capacitance</u> 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	<u>Stability</u> 100=100ppm 50=50ppm 30=30ppm 25=25ppm 20=20ppm 15=15ppm 10=10ppm 5=5ppm	<b>Operating</b> <u>Temperature</u> 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	Tape&Ree T&R Or Blank

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

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