



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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### FEATURES

- Fundamental to 40 MHz
- Tape and Reel (1,000 pcs. STD)

### OPTIONS

- 3.2mm Height Max (C9SD)

• SPECIFICATIONS	
PARAMETERS	MAX (unless otherwise noted)
Frequency Range	3.200 ~ 80.000 MHz
Frequency Tolerance @ 25°C	±10 ~ 50 PPM <sup>1</sup> (see options on page 2)
Frequency Stability, ref @ 25°C	±5 ~ 100 PPM (see options below)
Temperature Range	
Operating (TOPR)	-55°C ~ +125°C (see options below)
Storage (TSTG)	-55°C ~ +125°C
Shunt Capacitance (Co)	7pF
Load Capacitance (CL)	10 pF ~ Series (see options on page 2)
Drive Level	0.5 mW (0.1 mW Typical)
Aging per year	±3 PPM
Maximum Soldering Temp / Time	260°C / 10 Seconds
Moisture Sensitivity Level (MSL)	1
Termination Finish:	Sn/Ag/Cu
Seal Method	Resistance Weld
Lead (Pb) Free	Yes
RoHS Compliant	No Exemptions

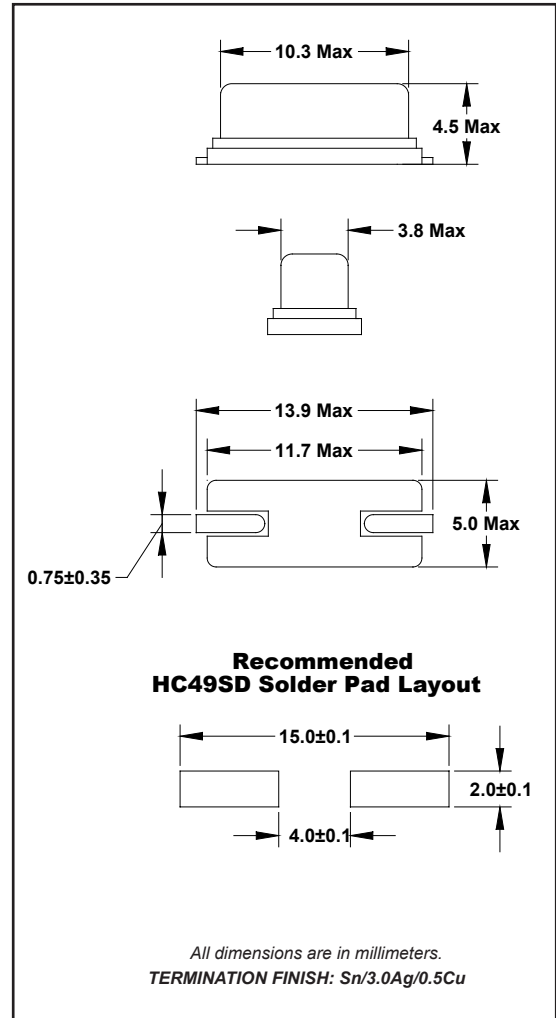
<sup>1</sup> Crystal has a ±30ppm tolerance specification for all standard part numbers.  
 Note: Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, etc. may vary.  
 All specifications subject to change without notice.

Frequency Range (MHz)	Operating Mode	Max ESR Ω
3.200 ~ 3.500	Fundamental	300
3.500+ ~ 4.000	Fundamental	200
4.000+ ~ 5.000	Fundamental	150
5.000+ ~ 6.000	Fundamental	120
6.000+ ~ 7.000	Fundamental	100
7.000+ ~ 9.000	Fundamental	80
9.000+ ~ 13.000	Fundamental	60
13.000+ ~ 20.000	Fundamental	40
20.000+ ~ 40.000	Fundamental	30
27.000 ~ 70.000	3rd OT	100
70.000+ ~ 80.000	3rd OT	80

### •Other Stabilities Available

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

Key: O=Available, X=Not Available, Δ=Consult Fox Technical Support





# Resistance Weld SMD Crystal

# C4SD

(former HC49SDLF)  
DATASHEET

• TAPE SPECIFICATIONS (millimeters)								• REEL SPECIFICATIONS (millimeters)							
MODEL	A	B	C	D	E	F	STD Reel QTY	MODEL	G	H	I	J	K	L	M
C4SD	∅1.5	4.0	12.0	11.5	24.0	4.8	1,000	C4SD	2.0	∅13	∅21	∅80	∅330	25.5	2.0

**Available Options & Part Identification for  
Crystal Model Number C4SD**

F C4SD C B M M 3.6864

<b>F</b> FOX	<b>C4SD</b> Model Number	<b>C</b> Tolerance B=50ppm C=30ppm E=20ppm F=15ppm H=10ppm L= 5ppm	<b>B</b> Stability A=100PPM B=50ppm C=30ppm E=20ppm F=15ppm H=10ppm L= 5ppm	<b>M</b> Load Capacitance A=Series E=10pF G=12pF J=15pF K=16pF L=18pF M=20pF N=22pF Q=30pF R=32pF	<b>M</b> Operating Temperature D=-10~+ 60°C F=-20~+70°C M=-40~+85°C P=-40~+105°C I=-40~+125°C T=-55~+125°C	<b>3.6864</b> Frequency
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