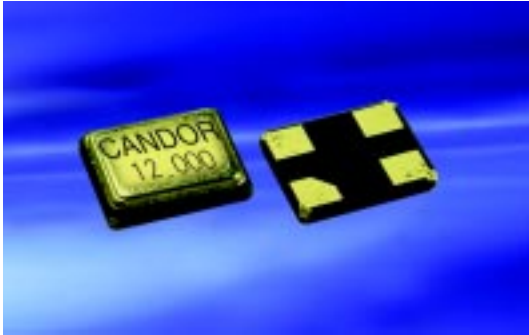


## ● Crystal Resonator (晶体谐振器) – SMD Type (表贴型)

### ● CSX-3225(Ceramic Seam Sealed SMD Crystal) CSX - 3225 陶瓷滚边焊表贴晶体



#### ● Applications 用途:

Cellular phone, Codeless phone, PHS, GPS, Bluetooth, Wireless LAN, DSC, Pager, TCXO etc. 移动电话, 无绳电话, 小灵通手机, 卫星定位导航, 蓝牙, 数码相机, 无线网卡, 传呼机温补振荡器, 等等。

#### ● Features 特征:

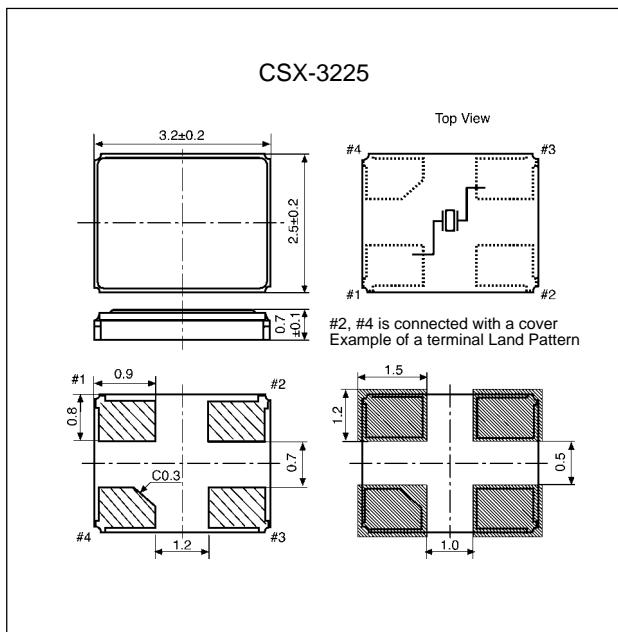
- A version of leadless type surface mount crystal unit. 无引线表面贴装晶体。
- High precision and high frequency stability. 高精度及高稳定性。
- Pb Free and RoHs compliant. 无铅符合绿色环保。
- Reflow soldering. Emboss tape & reel. 回流焊. 编带包装。
- Vacuum seam sealed package. 真空滚边焊封装。

#### ● Typical specifications 规格参数

Type	型号	CSX-3225		
Frequency range(Fund.)(基频)	频率范围	12,000-50,000MHz		
Vibration mode	振荡模式	AT cut		
Frequency tolerance(at +25℃)	调整频差	$\pm 10, \pm 20, \pm 30 \times 10^{-6}$		
Frequency stability	温度频差	$\pm 10 \times 10^{-6}$	$\pm 15 \times 10^{-6}$	See Table1 (见表 1)
Opera temperature range	工作温度	-10~+60℃	-30~+85℃	See Table1 (见表 1)
Equivalent series resistance	等效电阻	See Table2 (见表 2)		
Load capacitance	负载电容	series, 9pF, 10pF, 12pF, 16pF, 20pF, 30pF, etc.		
Shunt capacitance	静电容	5pF max.		
Level of drive	激励功率	10μW(100μW max.)		
Aging	老化率	$\pm 1, \pm 3$ ppm/year		
Storage temperature range	储存温度	-55~+125℃		

- Please consult for other specifications. (若有其它规格需求请告知)

#### ● Outline Dimensions [Unit: mm] 外形尺寸



#### ● Table1: Frequency stability (ref. to 25℃) 频率稳定性

O.P Temp.	± 2.5ppm	± 5ppm	± 10ppm	± 20ppm	± 30ppm
0~+50℃	●	●	●	●	●
-10~+60℃		●	●	●	●
-20~+70℃			●	●	●
-40~+85℃				●	●

#### ● Table2: Equivalent series resistance (ESR) 等效电阻

频率 Frequency (MHz)	ESR(Ω)
12.0-13.9 Fund.	100
14.0-16.0 Fund.	80
16.001-26.0 Fund.	60
26.001-50 Fund.	50