

# 陶瓷振荡子 (CERALOCK®)



## MHz片状型 – 汽车用窄频率公差型

配备内藏负载电容器的紧凑封装型片状“CERALOCK”可确保极高的精确度。

村田公司的频率调整和封装专有技术，实现了负载电容器内藏式片状“CERALOCK”。

应用于汽车的片状“CERALOCK”对于世界汽车市场具有十分重要的促进作用。

如此多品种的系列产品得益于对村田原有批量生产工艺和高可靠性的不懈发掘。

### ■特点

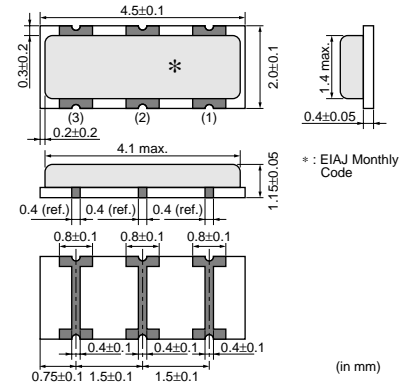
1. 本系列产品为具有极高精度的振荡子，其总公差小于  $\pm 3,000\text{ppm}$ 。
2. 本系列产品具有很高的可靠性，适用温度范围宽。
3. 振荡电路无需任何外接负载电容器。
4. 本系列产品具有很宽的适用温度范围。
5. 超小型且薄型振荡子。
6. 振荡电路无需任何调整。

### ■用途

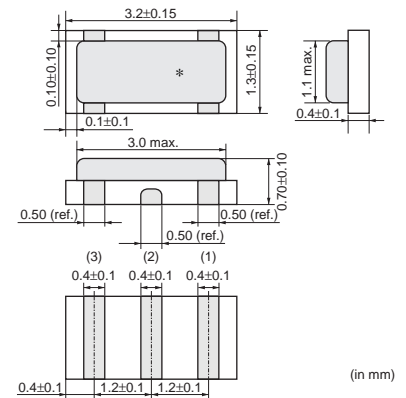
1. 组合仪表盘和控制面板
2. 安全控制装置  
(防抱死制动系统、电子稳定控制系统和安全气囊等)
3. 发动机电子控制装置、电子动力转向、停车装置等
4. 车辆空调、电动车窗、免钥匙门控系统
5. 智能化汽车运输系统  
(行车道保持系统、毫米波雷达等)
6. 混合动力车的电瓶控制装置



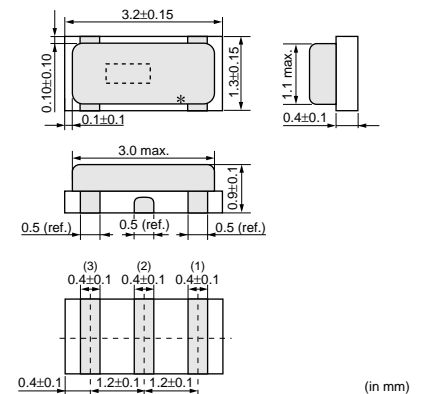
CSTCR\_G15B  
4.00-7.99MHz



CSTCE\_G15C  
8.00-13.99MHz



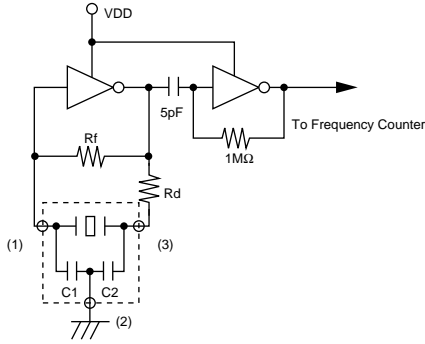
CSTCE\_V13C  
14.00-20.00MHz



品名	振荡频率 (MHz)	初始偏差	温度稳定性 (%)	温度范围 (C)
CSTCR_G15B	4.00 to 7.99	±0.1%	±0.15	-40 to 125
CSTCE_G15C	8.00 to 13.99	±0.1%	±0.13	-40 to 125
CSTCE_V13C	14.00 to 20.00	±0.1%	±0.13	-40 to 125

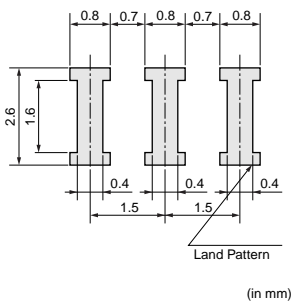
在不匹配的电路条件下，可能发生不规则振荡或停止振荡。请在使用前检查实际条件。 <http://www.quartzcrystal.cn/> QQ:657116624 TEL:0755-27837162

## ■ Oscillation Frequency Measuring Circuit

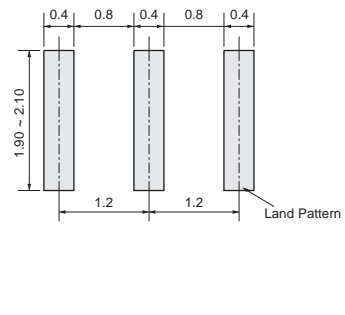


## ■ Standard Land Pattern Dimensions

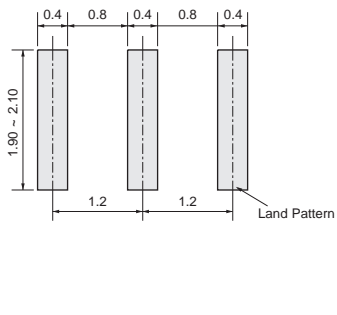
CSTCR\_G15B



CSTCE\_G15C

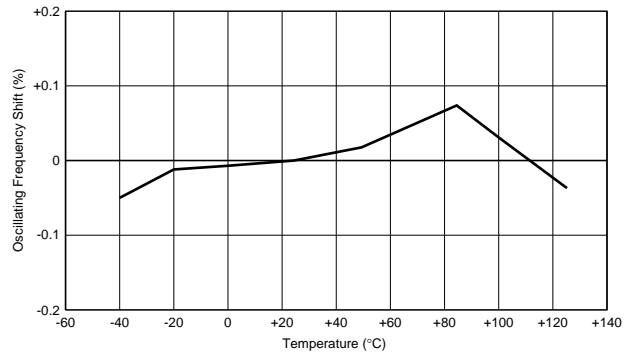


CSTCE\_V13C

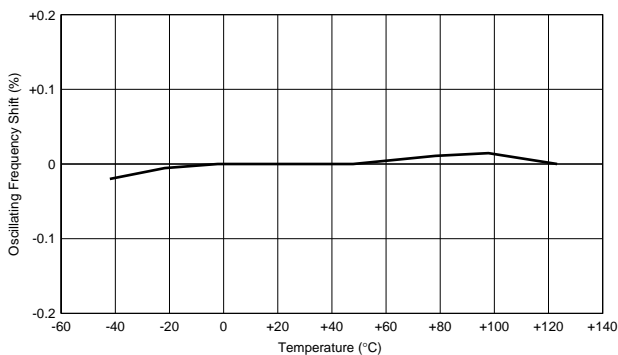


## ■ Oscillation Frequency Temperature Stability

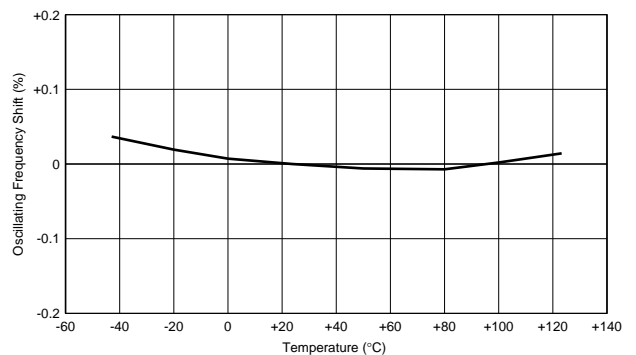
CSTCR\_G15B



CSTCE\_G15C



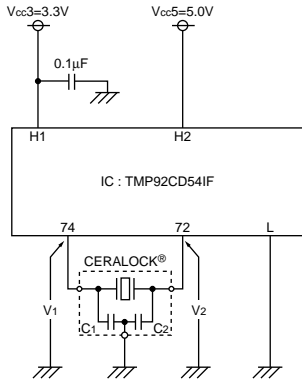
CSTCE\_V13C



# Application Circuits Utilization

## ■ TMP92CD54IF (Toshiba)

16-bit Microcomputer

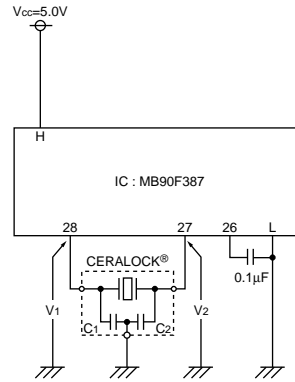


H1: 36, 68, 86  
 H2: 2, 4, 15, 40, 50, 61, 75  
 L: 1, 3, 13, 38, 51, 63, 73, 88

CERALOCK®: CSTCE10M0G15C□□-R0  
 C1=33pF (Typ.)  
 C2=33pF (Typ.)

## ■ MB90F387 (Fujitsu)

16-bit Microcomputer

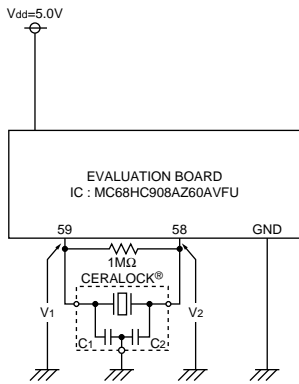


H: 1, 2, 21, 22, 24  
 L: 20, 23, 25, 48

CERALOCK®: CSTCE8M00G15C□□-R0  
 C1=33pF (Typ.)  
 C2=33pF (Typ.)

## ■ MC68HC908AZ60AVFU (Freescale)

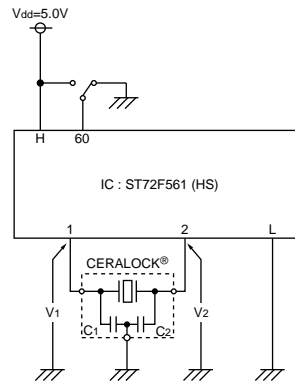
8-bit Microcomputer



CERALOCK®: CSTCE16M0V13C-R0  
 C1=15pF (Typ.)  
 C2=15pF (Typ.)

## ■ ST72F561 (HS) (ST Microelectronics)

8-bit Microcomputer

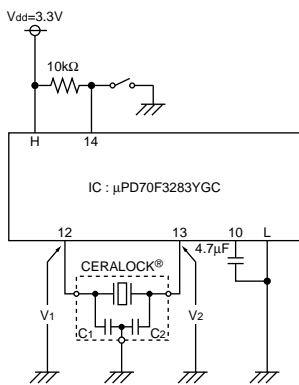


H: 9, 25, 41, 57, 58  
 L: 8, 24, 40, 55, 56

CERALOCK®: CSTCE8M00G15A□□-R0  
 C1=33pF (Typ.)  
 C2=33pF (Typ.)

## ■ µPD70F3283YGC (NEC Electronics)

32-bit Microcomputer

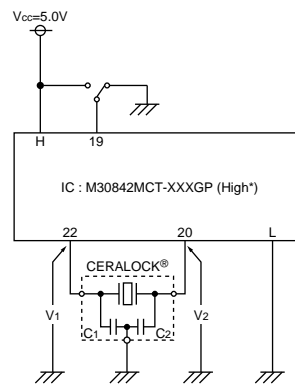


H: 1, 5, 9, 34, 70  
 L: 2, 8, 11, 15, 33, 69

CERALOCK®: CSTCE10M0G15C□□-R0  
 C1=33pF (Typ.)  
 C2=33pF (Typ.)

## ■ M30842MCT-XXXGP (Renesas)

16-bit Microcomputer



H: 23, 24, 37, 39, 59, 74, 91, 118, 122,  
 132, 142, 143  
 L: 15, 16, 21, 36, 41, 57, 76, 93,  
 110~113, 120, 121, 130, 140

\*High: XIN-XOUT Drive Capacity Select Bit

CERALOCK®: CSTCE8M00G15C□□-R0  
 C1=33pF (Typ.)  
 C2=33pF (Typ.)