

Ceramic Resonators (CERALOCK®)



MHz Lead Type -Standard Frequency Tolerance for General Usage-

MURATA's ceramic resonator, CERALOCK(R) with built-in load capacitors, has been widely applied as the most suitable component for clock oscillators in a broad range of microprocessors.

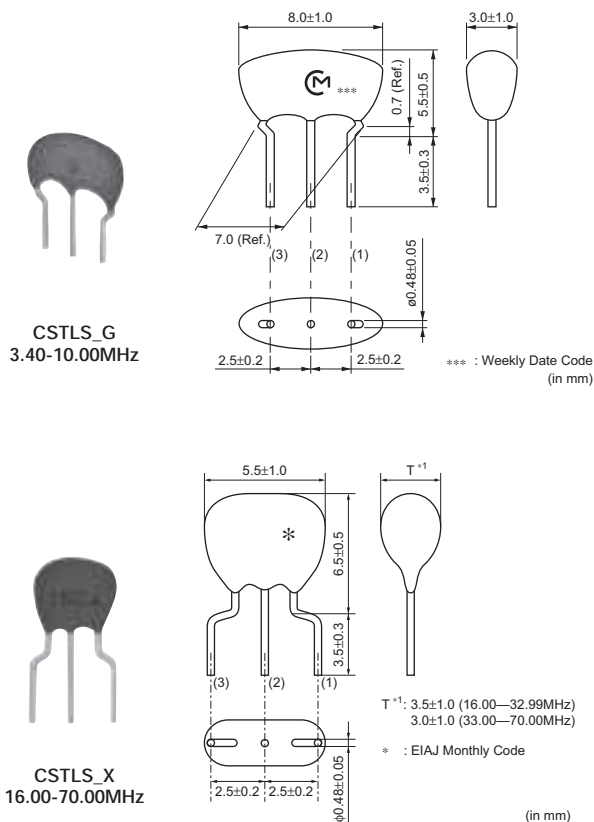
The CSTLS series can be used in the design of oscillation circuits not requiring external load capacitors, enabling both high-density mounting and cost reduction.

■ Features

1. Oscillation circuits do not require external load capacitors.
There is some variation in built-in capacitance values applicable to various IC.
2. Stable over a wide temperature range.
3. Compact, lightweight and exhibit superior shock resistance performance.
4. Enable the design of oscillator circuits requiring no adjustment.
5. Cost-effective and reliable availability

■ Applications

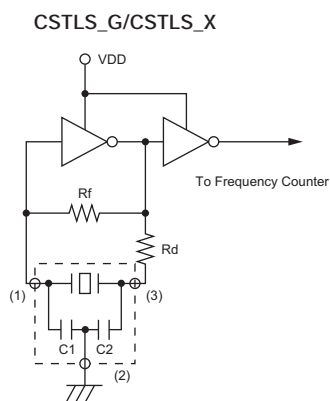
1. DTMF generators
2. Clock oscillators for microcomputers
3. Remote control units
4. Automated office equipment



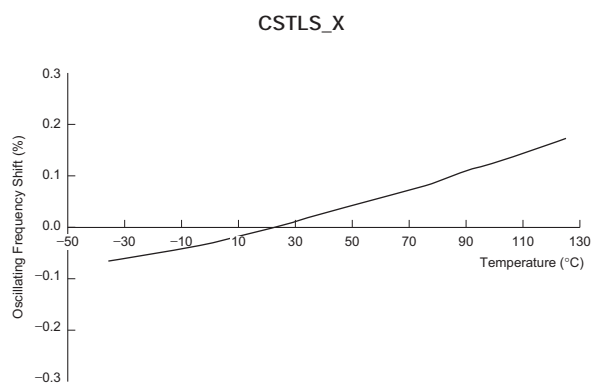
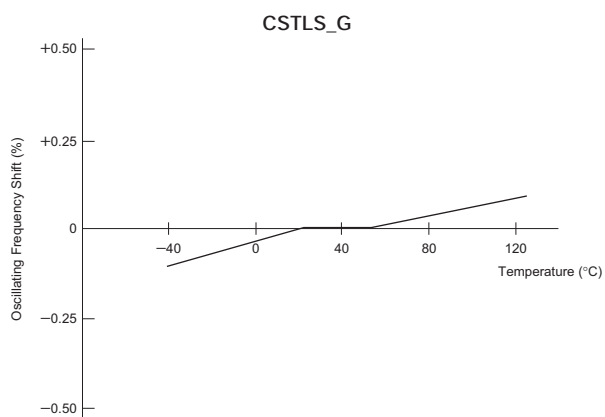
Part Number	Oscillating Frequency (MHz)	Initial Tolerance	Temperature Stability (%)	Temperature Range (°C)
CSTLS_G	3.40 to 10.00	±0.5%	±0.2 [-0.4% to +0.2%:Built-in Capacitance 47pF type]	-20 to 80
CSTLS_X	16.00 to 70.00	±0.5%	±0.2	-20 to 80

Irregular or stop oscillation may occur under unmatched circuit conditions. Please check the actual conditions prior to use.
The order quantity should be an integral multiple of the "Minimum Quantity" shown in the packaging page.

■ Oscillation Frequency Measuring Circuit



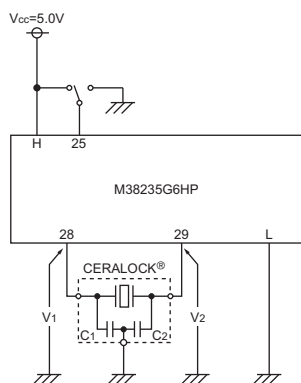
■ Oscillation Frequency Temperature Stability



Application Circuits Utilization

■ M38235G6HP (Renesas)

8-bit Microcomputer

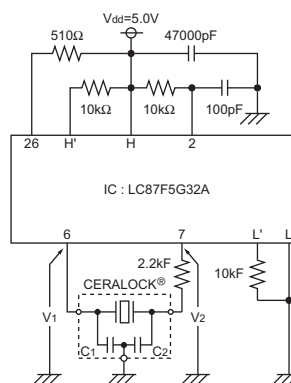


H: 71
 L: 30, 73

CERALOCK®: CSTLS8M00G53-B0
 C1=15pF (Typ.)
 C2=15pF (Typ.)

■ LC87F5G32A (Sanyo)

8-bit Microcomputer



H: 8, 19, 39
 L: 5, 20, 40
 H': 29, 31, 35
 L': 30, 32~34, 36

CERALOCK®: CSTLS5M00G53-B0
 C1=15pF (Typ.)
 C2=15pF (Typ.)