

Research for Frequency Products

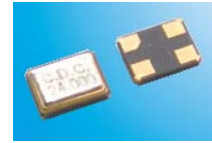
Description

This low profile 4 pad SMD ceramic package has been special designed for mobile phone, bluetooth and miniature electronic applications. All frequencies are vibrated in fundamental mode. 3000 parts are in 8mm embossed tape in reel as standard.

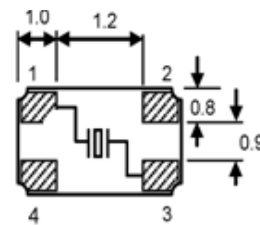
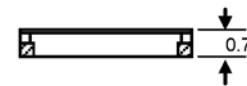
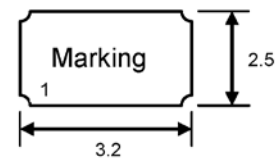
Features

Tight Tolerance $\pm 10\text{ppm}$ available
Ultra small size as $3.2 \times 2.5\text{mm}$
Thin package height as 0.7mm
SMD in high population PCB assembly
RoHS Complaint

Ceramic (SEAM seal) Crystal
 $3.2 \times 2.5 \times 0.7\text{mm}$ SMD (4 pad)
 $12.000\text{MHz} \sim 54.000\text{MHz}$



Outlines and Dimensions

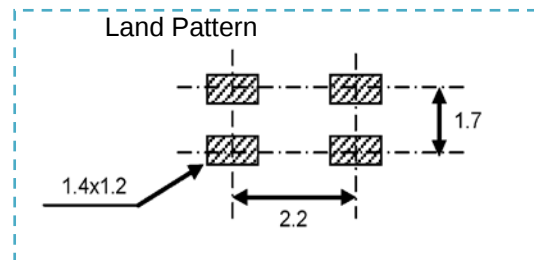


Bottom View

Pin	Connect
1	Xtal
2	GND
3	Xtal
4	GND

Standard Parameters

Parameter	Specifications
Frequency Range	$12.000\text{MHz} \sim 54.000\text{MHz}$
Vibration Mode	Fundamental
Frequency Tolerance @ 25°C	$\pm 30\text{ppm}$ ($\pm 10\text{ppm}$ option)
Frequency Stability vs Temp Range	$\pm 30\text{ppm}$ ($\pm 10\text{ppm}$ option)
Load Capacitance (pF)	$8 \sim 32\text{pF}$ or Series
Equivalent Series Resistance	
$12 \sim 13\text{ MHz}$	150Ω Max.
$13 \sim 20\text{ MHz}$	80Ω Max.
$20 \sim 27\text{ MHz}$	60Ω Max.
$27 \sim 54\text{ MHz}$	50Ω Max.
Drive Level	$10\mu\text{W}$
Operating Temp. Range	$-20 \sim +70^{\circ}\text{C}$ or specify
Storage Temp. Range	$-40 \sim 125^{\circ}\text{C}$



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