



Scale 3:1

* 0.95mm high version available on request.

Features

- ▄▄▄▄ High shock & vibration resistance
- ▄▄▄▄ Military temperature range option
- ▄▄▄▄ Low power consumption
- ▄▄▄▄ Miniature ceramic package

Standard Calibration Tolerances

32.0 ~ 200kHz	201 ~ 560kHz	561kHz ~ 1.0MHz
±30ppm	±100ppm	±100ppm
±100ppm	±250ppm	±500ppm

Standard Frequencies

Frequencies in kHz (unless stated)			
32.0000	60.0000	100.0000	307.2000
32.7680	65.5360	128.0000	1.00000MHz
38.4000	75.0000	153.6000	1.00800MHz
40.0000	76.8000	240.0000	

Specifications

Parameters	Product	Option Code
	CC4V	
Terminations: Gold plated pads Ni+Sn plated pads	■ □	T1A T2A
Frequency range: 32.768kHz 32.0kHz ~ 1.0MHz	■ □	
Calibration tolerance: see table Other	■ □	specify
Operating temperature range: -40 to +85°C -55 to +125°C	■ □	M
Storage temperature range: -55 to +125°C	■	
Circuit condition: 9pF (32.0 ~ 200kHz) 12.5pF (32.768kHz) 4pF (201 ~ 560kHz) 10pF (560kHz ~ 1.0MHz)	■ □ ■ ■	specify
Static capacitance (C₀): 1.2pF typ @ 32.768kHz 1.2pF typ @ 307.2kHz 1.0pF typ @ 1.0MHz	■ ■ ■	
Motional capacitance (C₁): 2.3fF typ @ 32.768kHz 1.1fF typ @ 307.2kHz 1.1fF typ @ 1.0MHz	■ ■ ■	
Equivalent series resistance: 50kΩ typ, 80kΩ max @ 32.768kHz 3.5kΩ typ, 5kΩ max @ 307.2kHz 500Ω typ, 1.2kΩ max @ 1.0MHz	■ ■ ■	
Ageing: ±3ppm max first year	■	
Drive level: 1.0μW max	■	
Turnover temperature (T₀): +25°C ±5°C @ 32.768kHz +33°C ±5°C @ 307.2kHz +39°C ±5°C @ 1.0MHz	■ ■ ■	
Frequency / temp coefficient: -0.035ppm/°C ² ±10%	■	
Shock resistance: ±5ppm, 5,000g, 0.3ms, ½ sine	■	
Vibration resistance: ±5ppm, 20g, 10.0 ~ 2,000Hz	■	
Soldering condition: Reflow, 260°C, 20 sec max	■	

■ Standard. □ Optional - Please specify required code(s) when ordering

Ordering Information

Product name + termination + option codes (if any) + frequency + calibration tolerance

eg: **CC4V-T1A 32.768kHz ±30ppm** -40+85°C

CC4V-T1A/M 76.80kHz ±100ppm -55+125°C

Option code X (eg CC4V-T1A/X) denotes a custom spec.

- ◆ Available on T&R (2k or 10k pcs/reel) or trays (100pcs/tray).
- ◆ Refer to our website for T&R and soldering details.
- ◆ Ask about higher shock & vibration specifications.