

What is a variable capacitor used for?

The capacitance of a variable capacitor changes as the relative effective area or distance between the plates is altered. This component is commonly used as a tuning capacitor in radio receiving circuits and finds applications in tuning, amplification, frequency selective oscillation, and other electronic circuits.

Does active shielding affect capacitance measurement readings?

Fortunately, there are ways to help mitigate these factors so it does not affect the capacitance measurement readings. One of those ways is through active shielding. The FDC1004 features active shield drivers which can reduce EMI interference and help focus the sensing field of a capacitive sensor.

Why are variable capacitors used in LC resonant circuits?

Variable capacitors are used in LC resonant circuits to adjust the resonance frequency. The resonance frequency is inversely proportional to the square of the capacitance, allowing for precise frequency control. 2.

What is a solid dielectric variable capacitor?

Solid dielectric variable capacitors utilize materials such as mica sheets or plastic films (e.g., polystyrene) as the dielectric medium. These capacitors are known for their small size and lightweight nature. They find applications in various tuning and oscillation circuits.

How to choose a variable capacitor?

A: There are several factors to consider when choosing a variable capacitor, such as the required capacitance range, voltage rating, quality factor, temperature coefficient, size, shape, packaging, etc. The choice depends on the design specifications and performance requirements of the circuit or device.

Can variable capacitors be used in capacitive potentiometric circuits?

variable capacitor one section's capacity will increase while the other section's decreases, keeping the stator-to-stator capacitance constant. Differential variable capacitors can therefore be used in capacitive potentiometric circuits.

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Shield between sections not available in X764 and CN156. View as: List Grid Show. per page ... 48-001 Variable Capacitor 4 Sections 15-520pf 1kv Per Section (Pull) \$99.91. Add to Cart. 020 spacing, 27 plates per section, 1/4" Shaft;

Variable capacitors are widely used in various electronic circuits for tuning, amplification, frequency selective oscillation, and more. Some common applications include: 1. Resonance Circuit. Variable capacitors are used in LC ...

Variable Air Capacitors 1422 Datasheet Feb 2024 The 1422 is a stable and precise variable air capacitor intended for use as a continuously adjustable ... tor terminal connected to panel and ...

Variable capacitors are electrical components designed to have a capacitance that can be adjusted manually or automatically. These capacitors are often used in tuning circuits, such as ...

This representation highlights the diode's ability to act as a variable capacitor. The anode is denoted by the triangle, and the cathode by the vertical line. Gap between two ...

Description. BRITISH MADE(AUTONNIC)VARIABLE PADDER/TRIMMER CAPACITOR High quality item,will not deteriorate due to high temp/rf/long term use!!Materials used are porcelain,mica and bronze, will last forever! ...

Variable Air Capacitors 1422 Datasheet August, 2019 The 1422 is a stable and precise variable air capacitor intended for use as a continuously adjustable standard of capacitance. One of the ...

?? / ????(Trimmer Capacitors & Variable Capacitor),????Mouser Electronics(???)????? / ??????????,????????? ...

OverviewMechanically controlled capacitanceSpecial forms of mechanically variable capacitorsHistoryElectronically controlled capacitanceTransducersNotesExternal linksA variable capacitor is a capacitor whose capacitance may be intentionally and repeatedly changed mechanically or electronically. Variable capacitors are often used in L/C circuits to set the resonance frequency, e.g. to tune a radio (therefore it is sometimes called a tuning capacitor or tuning condenser), or as a variable reactance, e.g. for impedance matching in antenna tuners.

A variable capacitor is a type of capacitor whose capacitance can be adjusted or varied. This adjustability is crucial in applications like tuning radio frequencies and optimizing circuits, as it ...

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