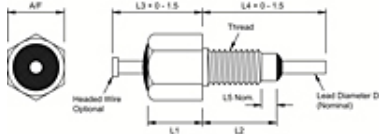


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Item # DCT418N 100N, Miniature Threaded Coaxial Capacitors

List Price QUOTE



Miniature Threaded Coaxial Capacitors

All Dimensions in Millimeters.

All Dimensions Maximum unless otherwise Stated.

All Units in The 07 Case Are also Available in Case Size 55.

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SPECIFICATIONS

Circuit Configuration	C
Min. Capacitance	100.0 nF
Voltage Rating at -55 °C to +85 °C	100 VDC
Voltage Rating at -55 °C to +125 °C	87 VDC
Current Rating (DC)	10.0 A
Mounting Details	Miniature Threaded
Mounting Style	B A
Max. Panel Thickness	2.5 mm
Thread Size	M5 x 0.8
Finish	Tin
Wire	Plain

Typical Insertion Loss (50 Ω System) at 10 MHz	41 dB
Typical Insertion Loss (50 Ω System) at 100 MHz	60 dB
Typical Insertion Loss (50 Ω System) at 1 GHz	65 dB
Typical Insertion Loss (50 Ω System) at 10 GHz	65 dB
Min. Insulation Resistance	5 GΩ
Environmental Classification	55/125/56
Max. L1	Min. 32 mm
Max. L2	13.4 mm
L3 Pin	Min. 34 mm
L3 Headed Leads	19.8 mm
L4 Pins	5.0 mm
L4 Headed Leads	6.5 mm
A/F	6.4 mm
D Nominal	0.9 mm

PREFACE

Oxley is established as one of the world's leading manufacturers and suppliers of electromagnetic interference (EMI) suppression filters, with a wide range of single or multi-line and full connector solutions. The quality, reliability and performance of our components allows us to meet the most stringent requirements of military and civil aerospace, industrial control and telecommunications equipment applications.

For over 30 years Oxley EMI suppression filters have been successfully used in a range of critical applications from signal protection in radio systems and computer communication interfaces to civil aviation engine control systems and telecoms networks.

The capability to meet the demand for customer specific solutions was established through our ability to manufacture high quality ceramic capacitors and tightly toleranced mechanical components coupled with an engineering and production facility skilled in the precision assembly of filter components.

ELECTRO MAGNETIC

The increase in frequency and power of electromagnetic interference (EMI) is a major threat to the integrity of telecommunications, avionics, industrial and defence equipment. Many semiconductor circuits are particularly sensitive to voltage transients or spikes on signal and control lines.

Designing equipment to operate within this electromagnetic environment and to be compatible with worldwide electromagnetic legislation is essential. Many methods are now available to ensure equipment meets directives on electromagnetic compatibility (EMC).

EMC describes the ability of electrical and electronic equipment to function as intended, without being adversely affected by electromagnetic interference and without being the source of such interference.

Choosing Oxley EMI suppression components ensures a high quality and cost effective EMC solution.

SINGLE LINE FILTERS

Oxley single line EMI filters are available in a comprehensive range of styles and circuit configurations. The standard range covers traditional threaded and solder in chassis mounting styles, as well as pcb and our unique push-fit filters with C, CL, Pi and T circuit options. Most filtering requirements can be covered from standard products. Where a specific filter requirement is not covered by our standard product range, custom filter solutions are available on request.

MULTI-LINE FILTERS

Oxley offer a variety of custom multi-line filter solutions optimised for each particular requirement of mechanical envelope and electrical performance. With in-house design, engineering and manufacture facilities, our unique capabilities utilise three filtering technologies including: tubular, multi-layer discoidal and capacitive planar arrays. Using our knowledge and experience we are able to offer the most cost effective solution, appropriate to a customers performance requirements. With the addition of a range of inductive elements, combination filters consisting of L, Pi, T and more complex filters configurations are also available.

PLANAR CAPACITORS

The multiway planar capacitor array or "planar" is a single block of ceramic with multiple feedthrough lines. These can be capacitive, unfiltered or grounded and offer increased flexibility in the design of EMI filter solutions. Each line can be individually specified for its capacitance value and contact size.

Our planar component range varies from a simple 2 line capacitive array to those in excess of 150 lines. Common platforms include the military circular and D-type formats through to unique customer defined layouts. Typical capacitance values vary from 10 pF to in excess of 1.4 μ F, and with dielectric withstand voltages up to 2.5 kV.

An innovative feature that improves both filter assembly and reliability, is the compliant spring contact. Fitted to each line the spring contact removes the need for multiple solder operations. This advanced assembly technique, increases the isolation of the ceramic elements from thermal and mechanical stress, provides a really rugged solution.

FILTERED CONNECTOR MODULES

Replacing a standard connector with an EMI filtered version is often the most cost effective and efficient way of integrating filters into high line density requirements. These can often be supplied as direct replacements for the existing unfiltered connector.

Oxley work closely with a range of leading connector manufacturers across the world. Providing EMI solutions for all the common circular and rectangular connector styles, including hermetic ranges, we are able to offer advice on the best filter solution. In many cases EMI filters are required to withstand harsh environmental conditions. Our design team are able to provide environmentally sealed filter assemblies to a customer specification if required.

TRANSIENT VOLTAGE SUPPRESSION (TVS)

Where there is a need for TVS, for example to meet the requirements of RTCA DO 160 and other specifications, we are able to provide solutions to cover a range of transient and power handling requirements. These elements can be integrated into both single and multi-line filters providing a high density integrated package.

A TOTAL IN-HOUSE CERAMIC CAPABILITY

The key element of a feedthrough filter is the ceramic capacitor. Oxley has invested in the ongoing expansion and development of an in-house capacitor manufacturing facility, dedicated to the supply of ceramic capacitor components and technologies for filtered connectors and feedthrough components.

All our manufacture and assembly is carried out under class 10000 clean room conditions with class 100 workstations for critical ceramics process operations. Statistical process control (SPC) techniques are applied throughout the manufacturing process in order to control parameters during production. All multi-line filters undergo electrical testing for capacitance, dissipation, dielectric withstand voltage and insulation resistance before release.

FILTER ARRAY ASSEMBLIES

The use of filter arrays in many applications offers reduced assembly costs; improved reliability. Smaller size and lighter weight and offers other benefits to the customer for example removing the possibility of wiring errors during any subsequent assembly operations.

Discrete panel assemblies can be made up from any combination of the full range of Oxley filters, into rectangular, circular or indeed any customer specified panel shape.
