

## Overview

A feed-through filter series utilizing discoidal ceramics for the capacitive element. This robust multilayer structure provides solutions for EMI problems from 30kHz to 1GHz. The filters are housed in robust, sealed metal cylinders with threaded construction, and offer a range of terminal options.

- Very high attenuation level throughout frequency spectrum
- Capacitor value 1.2  $\mu\text{F}$  rated 80 VDC
- Wide choice of performance options
- Excellent temperature stability
- Hermetic construction

## Applications

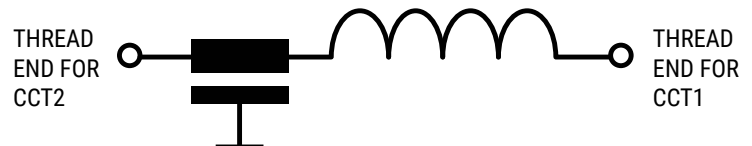
Specifically designed for military, industrial, telecom and medical applications.



## Technical Specifications

Item	Parameters/Characteristics
Rated Voltage	50 VAC 80 VDC
Rated Current	0.06 – 15 A
Capacitance	1.2 $\mu\text{F}$
Rated Temperature	40°C
Temperature range	-55°C to 125°C
Climate Category	55/125/56
Voltage Test	200 VDC

### Typical Electrical Schematic



## Technical Specifications cont.

Part Number	Rated Current at 40°C (A)	RDC (mΩ)	CCT
AKCL100412RK(1)1(2)	15	0.08	1
AKCL100412RK(1)3(2)	15	0.08	1
AKCL100412RA(1)5(2)	0.06	70	1
AKCL101412RA(1)5(2)	0.06	70	2
AKCL100412RB(1)5(2)	0.15	12	1
AKCL101412RB(1)5(2)	0.15	12	2
AKCL100412RC(1)5(2)	0.25	4	1
AKCL101412RC(1)5(2)	0.25	5	2
AKCL100412RD(1)5(2)	0.3	2.3	1
AKCL101412RD(1)5(2)	0.3	2.3	2
AKCL100412RE(1)5(2)	0.45	1.2	1
AKCL101412RE(1)5(2)	0.45	1.2	2
AKCL100412RJ(1)5(2)	10	0.01	1
AKCL101412RJ(1)5(2)	10	0.01	2

(1) Termination: W = Wire  
T = Tag

(2) Case finish: T = Tin plated  
S = Silver plated  
G = Gold plated

## Environmental Compliance

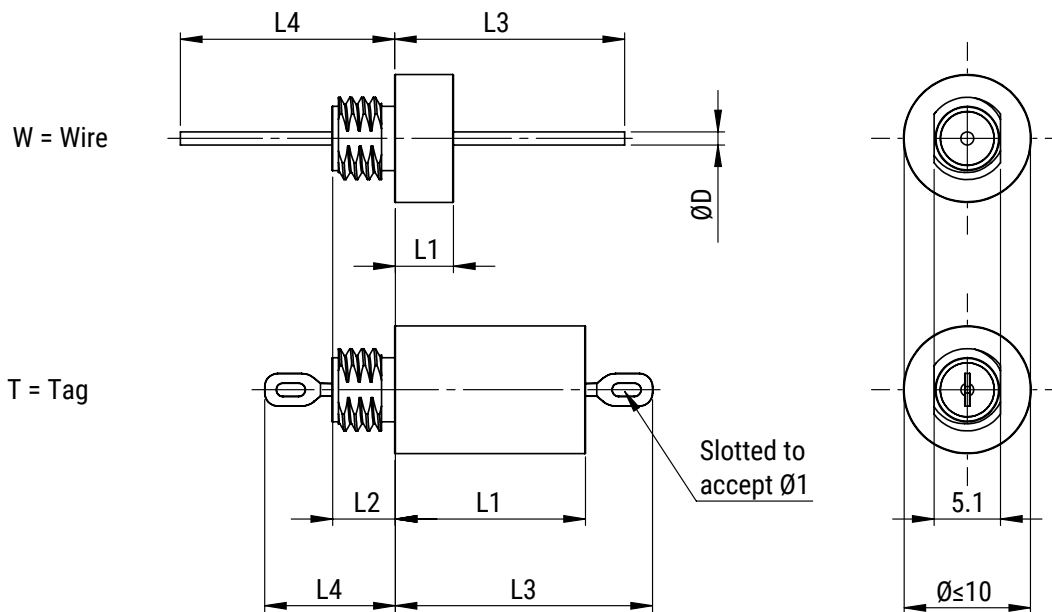
KEMET EMI filters are RoHS Compliant.



## Typical Insertion Loss

Part Number	30 kHz (dB)	150 kHz (dB)	300 kHz (dB)	1 MHz (dB)	10 MHz (dB)	1 GHz (dB)
AKCL100412RK-1-	15	28	34	44	60	70
AKCL100412RK-3-	15	28	34	44	60	70
AKCL100412RA-5-	44	70	70	70	70	70
AKCL101412RA-5-	44	70	70	70	70	70
AKCL100412RB-5-	24	52	64	70	70	70
AKCL101412RB-5-	24	52	64	70	70	70
AKCL100412RC-5-	18	42	56	70	70	70
AKCL101412RC-5-	18	42	56	70	70	70
AKCL100412RD-5-	16	35	44	62	70	70
AKCL101412RD-5-	16	35	44	62	70	70
AKCL100412RE-5-	15	31	37	55	70	70
AKCL101412RE-5-	15	31	37	55	70	70
AKCL100412RJ-5-	15	28	33	44	70	70
AKCL101412RJ-5-	15	28	33	44	70	70

## Mechanical Dimensions – Millimeters



Part Number	Dimensions (mm)							Wire Ø D	Thread
	L1 Maximum	L2 Maximum	L3 Maximum Tag	L3 Maximum Wire	L4 Maximum Tag	L4 Maximum Wire			
AKCL100412RK-1-	4.6	4.85	8.25	17	8.9	17.2	1	1/4 - 28 UNF	
AKCL100412RK-3-	4.6	4.85	8.5	17	8.9	17.2	1.5	1/4 - 28 UNF	
AKCL100412RA-5-	14.7	4.85	18.8	27	8.9	17.2	1.5	1/4 - 28 UNF	
AKCL101412RA-5-	14.7	4.85	18.8	27	8.9	17.2	1.5	1/4 - 28 UNF	
AKCL100412RB-5-	14.7	4.85	18.8	27	8.9	17.2	1.5	1/4 - 28 UNF	
AKCL101412RB-5-	14.7	4.85	18.8	27	8.9	17.2	1.5	1/4 - 28 UNF	
AKCL100412RC-5-	14.7	4.85	18.8	27	8.9	17.2	1.5	1/4 - 28 UNF	
AKCL101412RC-5-	14.7	4.85	18.8	27	8.9	17.2	1.5	1/4 - 28 UNF	
AKCL100412RD-5-	14.7	4.85	18.8	27	8.9	17.2	1.5	1/4 - 28 UNF	
AKCL101412RD-5-	14.7	4.85	18.8	27	8.9	17.2	1.5	1/4 - 28 UNF	
AKCL100412RE-5-	14.7	4.85	18.8	27	8.9	17.2	1.5	1/4 - 28 UNF	
AKCL101412RE-5-	14.7	4.85	18.8	27	8.9	17.2	1.5	1/4 - 28 UNF	
AKCL100412RJ-5-	14.7	4.85	18.8	27	8.9	17.2	1.5	1/4 - 28 UNF	
AKCL101412RJ-5-	14.7	4.85	18.8	27	8.9	17.2	1.5	1/4 - 28 UNF	

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