

# Differential Mode SN Coils, SN-J Series, Terminal Base Type

## Overview

The KEMET SN-J coils are normal mode choke coils with a wide variety of characteristics. These coils are designed with our proprietary Fe dust cores and are useful in various noise countermeasure fields.

## Applications

- Home appliances
- Power supplies

## Benefits

- Proprietary Fe dust core material
- Excellent for normal mode noise countermeasures
- Large core loss
- Wide variety of sizes and specifications
- Operating temperature range from -25°C to +105°C or +120°C
- UL 94 V-2 flame retardant rated cap
- UL 94 V-0 flame retardant rated base

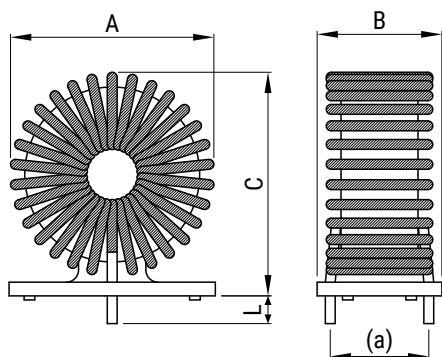


## Part Number System

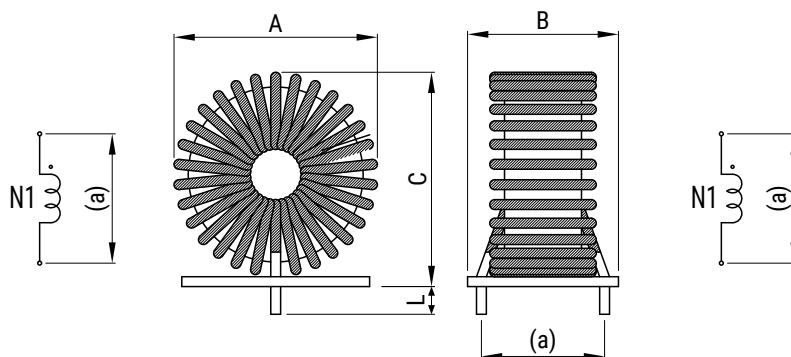
SN	10-	300	J
Series	Dimension Code (See Dimensions)	Specification Code (See Table 1)	Terminal Base Type (See Dimensions)
SN	10 12 14P 16P	300 400 500 800	J

## Dimensions – Millimeters

**Figure 1**



**Figure 2**



Part Number	Dimensions (mm)				Pin Pitch <sup>1</sup> (Reference)	Figure
	A (Maximum)	B (Maximum)	C (Maximum)	L	a	
SN10-300J	23.0	16.0	26.0	7.0±2	10	Fig. 1
SN10-400J	23.0	16.0	26.0	7.0±2	10	Fig. 1
SN10-500J	23.0	16.0	26.0	7.0±2	10	Fig. 1
SN12-800J	29.0	18.0	29.0	7.0±2	10	Fig. 1
SN12-400J	28.0	17.0	29.0	7.0±2	10	Fig. 1
SN12-500J	28.0	17.0	29.0	7.0±2	10	Fig. 1
SN16P-400J	33.0	21.0	33.5	4.5±1	16	Fig. 2
SN14P-300J	35.0	25.0	37.0	4.5±1	20	Fig. 2

<sup>1</sup> Pin pitch listed above for reference only. Values not guaranteed

## Environmental Compliance

All KEMET AC Line Filters are RoHS Compliant.



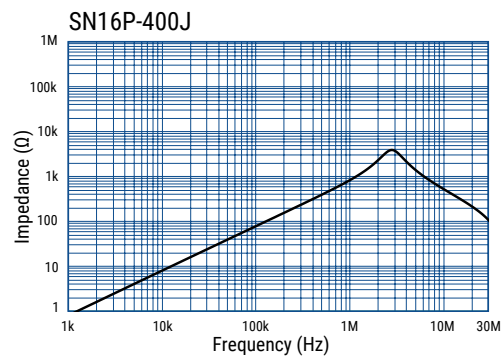
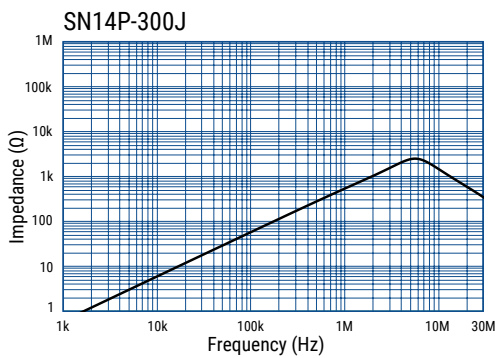
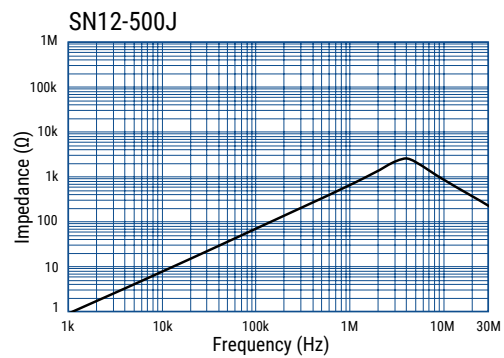
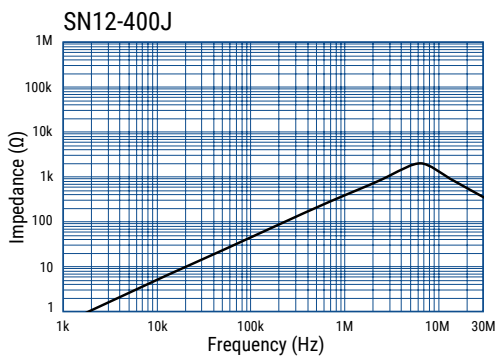
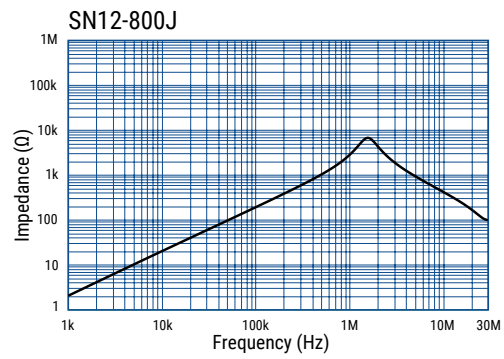
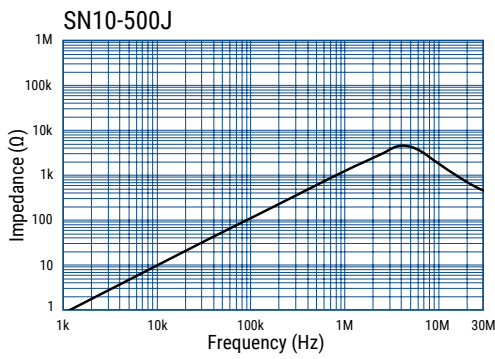
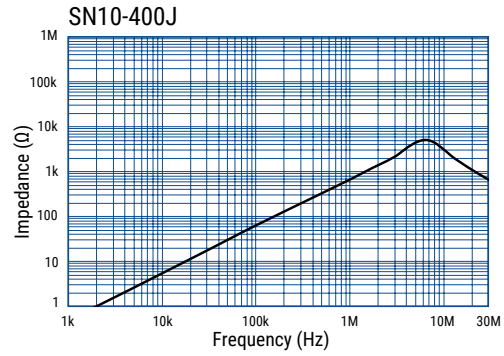
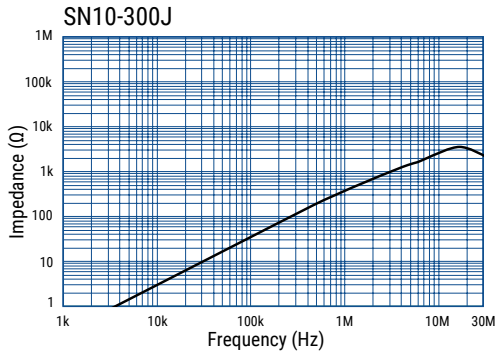
## Performance Characteristics

Item	Performance Characteristics
Rated Current Range	3 – 15 A
Rated Inductance Range	40 – 270 $\mu$ H minimum
Inductance Measurement Condition	100 kHz
Wire Type	1 PVF, 1 UEW, and 1 PEW
Thermal Class	A (105°C) and E (120°C)
Operating Temperature Range	-25°C to +105°C (include self temperature rise) and -25°C to +120°C (include self temperature rise)

### Table 1 – Ratings & Part Number Reference

Part Number	Rated Current (A)	Inductance ( $\mu$ H) Minimum	DC Resistance/Line ( $m\Omega$ ) Maximum	Temperature Rise (K) Maximum	Wire Diameter (mm)	Thermal Class	Weight (g) Approximate
SN10-300J	3	40	0.041	23	0.8	A (105°C)	12.5
SN10-400J	3	72	0.056	27	0.8	A (105°C)	12.9
SN10-500J	3	110	0.071	30	0.8	A (105°C)	14.0
SN12-800J	3	270	0.130	45	0.8	A (105°C)	19.0
SN12-400J	5	64	0.037	35	1.0	A (105°C)	17.1
SN12-500J	5	100	0.045	38	1.0	A (105°C)	20.0
SN16P-400J	8	108	0.027	45	1.5	E (120°C)	44.9
SN14P-300J	15	80	0.015	77	1.6	E (120°C)	56.0

## Frequency Characteristics



## Packaging

Type	Packaging Type	Pieces Per Box
SN10-J	Tray	600
SN12-J		300
SN14P-300J		250
SN16P-400J		

## Handling Precautions

### Precautions for product storage

AC Line Filters should be stored in normal working environments. While the chokes themselves are quite robust in other environments, solderability will be degraded by exposure to high temperatures, high humidity, corrosive atmospheres, and long term storage.

KEMET recommends that maximum storage temperature not exceed 40°C and maximum storage humidity not exceed 70% relative humidity. Atmospheres should be free of chlorine and sulfur bearing compounds. Temperature fluctuations should be minimized to avoid condensation on the parts. Avoid storage near strong magnetic fields, as this might magnetize the product.

For optimized solderability, AC line filters stock should be used promptly and preferably within 6 months of receipt.

### Product temperature rise values

The values listed for temperature rise are the result of self-heating in wires when the rated current (commercial frequency) is applied.

When using the product, check and evaluate the value of the core temperature rise under actual operating conditions.

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