# 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

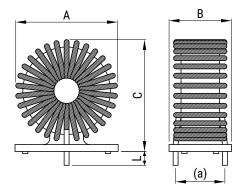
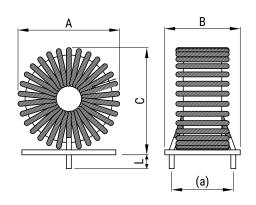


Figure 2





Part Number	Dimensions (mm)				Pin Pitch¹ (Reference)	Figure
T dit Number	A (Maximum)	B (Maximum)	C (Maximum)	L	a	riguic
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>&</sup>lt;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**

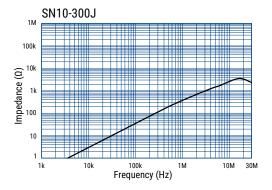
Item	Performance Characteristics		
Rated Current Range	3 - 15 A		
Rated Inductance Range	40 – 270 μH minimum		
Inductance Measurement Condition	100 kHz		
Wire Type	1 PVF, 1 UEW, and 1 PEW		
Thermal Class	A (105°C) and E (120°C)		
Operating Temperature Range	-25°C to +105°C (include self temperature rise)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

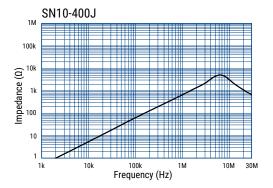
# **Table 1 – Ratings & Part Number Reference**

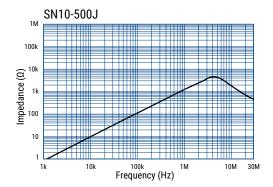
Part Number	Rated Current (A)	Inductance (µH) Minimum	DC Resistance/ Line (mΩ) Maximum	Temperature Rise (K) Maximum	Wire Diameter (mm)	Thermal Class	Weight (g) Approximate
SN10-300J	3	40	0.041	23	0.8	A (105°C)	12.5
SN10-400J	3	72	0.056	27	0.8	A (105°C)	12.9
SN10-500J	3	110	0.071	30	0.8	A (105°C)	14.0
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

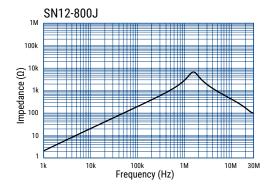


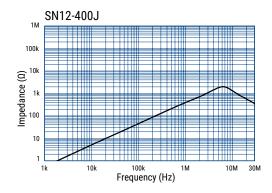
# **Frequency Characteristics**

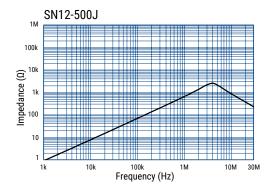


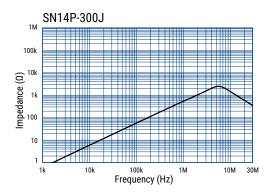


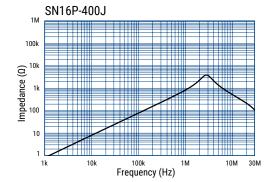














## **Packaging**

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

## **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.



## **KEMET Electronics Corporation Sales Offices**

For a complete list of our global sales offices, please visit www.kemet.com/sales.

#### **Disclaimer**

All product specifications, statements, information and data (collectively, the "Information") in this datasheet are subject to change. The customer is responsible for checking and verifying the extent to which the Information contained in this publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without guarantee, warranty, or responsibility of any kind, expressed or implied.

Statements of suitability for certain applications are based on KEMET Electronics Corporation's ("KEMET") knowledge of typical operating conditions for such applications, but are not intended to constitute – and KEMET specifically disclaims – any warranty concerning suitability for a specific customer application or use. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by KEMET with reference to the use of KEMET's products is given gratis, and KEMET assumes no obligation or liability for the advice given or results obtained.

Although KEMET designs and manufactures its products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicted or that other measures may not be required.

When providing KEMET products and technologies contained herein to other countries, the customer must abide by the procedures and provisions stipulated in all applicable export laws and regulations, including without limitation the International Traffic in Arms Regulations (ITAR), the US Export Administration Regulations (EAR) and the Japan Foreign Exchange and Foreign Trade Act.