



**THE DATASHEET OF  
SN5-40P2**



# Differential Mode SN Coils, SN-P2 Series, Terminal Base Type

## Overview

The KEMET SN-P2 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

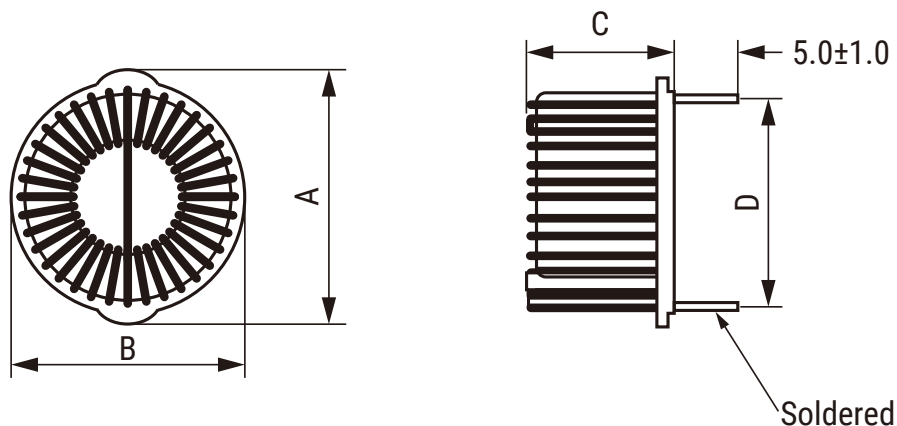
- Proprietary Fe dust core material
- Excellent for normal mode noise countermeasures
- Large core loss
- Wide variety of sizes and specifications
- Operating temperature range from  $-40^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$
- UL 94 V-0 flame retardant rated cap



## Part Number System

SN	5-	30	P2
Series	Dimension Code (See Dimensions)	Specification Code (See Table 1)	Terminal Base Type (See Dimensions)
SN	5 8S	30 40 50	P2

## Dimensions – Millimeters



Part Number	Dimensions (mm)			
	A Maximum	B Maximum	C Maximum	D Maximum
SN5-30P2	17.0	14.0	9.0	12.7
SN5-40P2	17.0	14.0	9.0	12.7
SN8S-30P2	19.0	17.0	10.5	15.2
SN8S-40P2	19.0	17.0	10.5	15.2
SN8S-50P2	19.0	17.0	10.5	15.2

## Environmental Compliance

All KEMET AC Line Filters are RoHS Compliant.



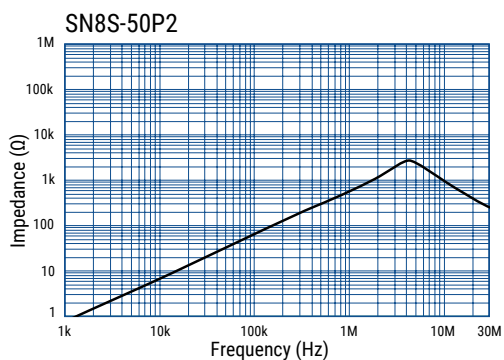
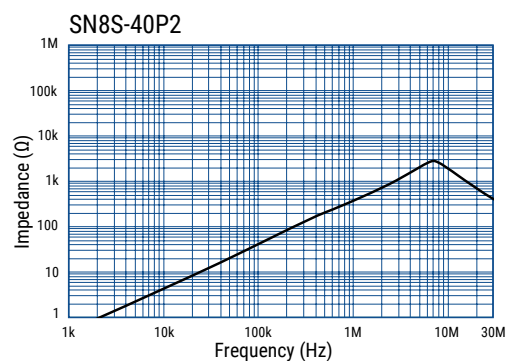
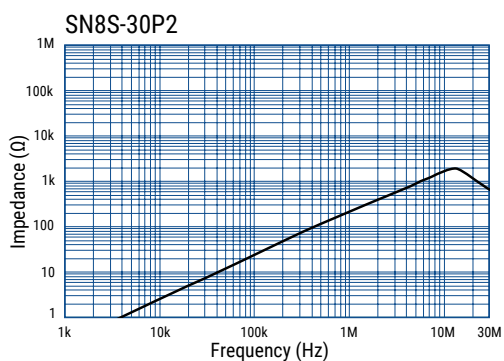
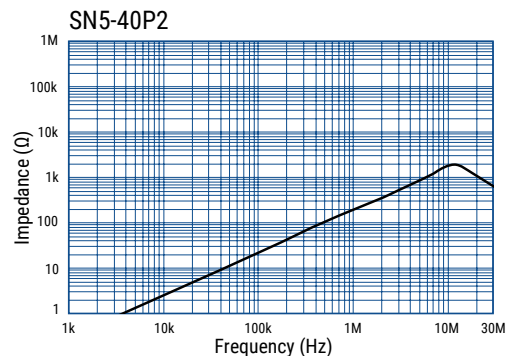
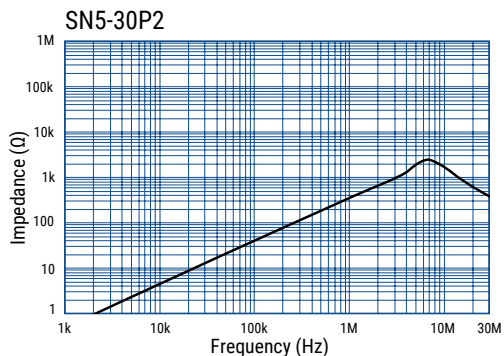
## Performance Characteristics

Item	Performance Characteristics
Rated Current	2 A
Rated Inductance Range	25 – 72 $\mu$ H minimum
Inductance Measurement Condition	100 kHz
Wire Type	1 PVF, 1 UEW, and 1 PEW
Thermal Class	A (105°C)
Operating Temperature Range	-40°C to +105°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)	Weight (g) Approximate
SN5-30P2	2	25	0.046	18	0.55	3
SN5-40P2	2	48	0.065	22	0.55	3.5
SN8S-30P2	2	26	0.050	19	0.60	5
SN8S-40P2	2	46	0.060	20	0.60	5.2
SN8S-50P2	2	72	0.075	23	0.60	5.5

## Frequency Characteristics



## Packaging

Type	Packaging Type	Pieces Per Box
SN5-P2	Tray	1,000
SN8S-P2		1,600

## 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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