

## Overview

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

## Applications

- Home appliances
- Power supplies

## Benefits

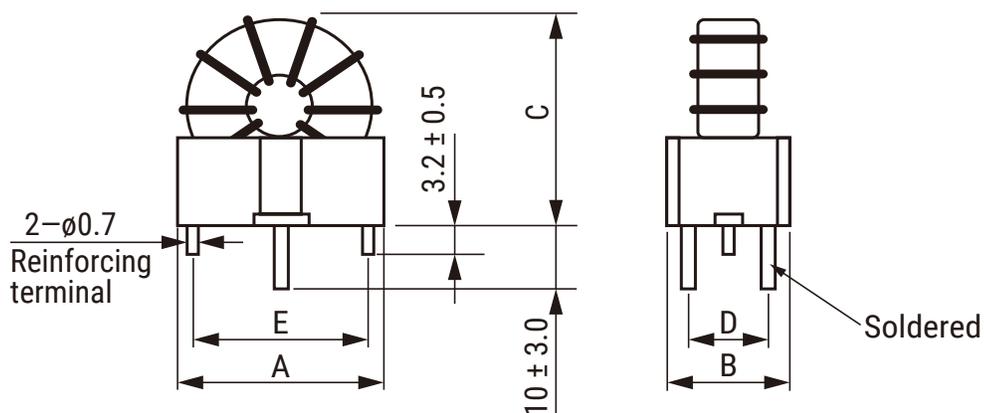
- Proprietary Fe dust core material
- Excellent for normal mode noise countermeasures
- Large core loss
- Wide variety of sizes and specifications
- Operating temperature range from  $-25^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$
- UL94 V-0 flame retardant rated cap



## Part Number System

| SN     | 10-                                  | 300   | J  |
|--------|--------------------------------------|---|--|
| Series | Dimension Code<br>(See Dimensions)   | Specification Code<br>(See Table 1)               | Terminal Base Type<br>(See Dimensions)     |
| SN     | 3<br>5<br>8S<br>8D<br>10<br>13<br>16 | 30<br>40<br>50<br>200<br>300<br>400<br>450<br>500 | Blank = No terminal<br>J<br>JA<br>JB<br>P2 |

## Dimensions – Millimeters



| Part Number | Dimensions (mm) |              |              |        |        |
|-------------|-----------------|--------------|--------------|--------|--------|
|             | A<br>Maximum    | B<br>Maximum | C<br>Maximum | D      | E      |
| SN5-300JB   | 13.5            | 9.2          | 15.0         | (7.5)  | (10.0) |
| SN5-450JB   | 13.5            | 9.2          | 15.5         | (7.5)  | (10.0) |
| SN8S-300JB  | 18.0            | 12.5         | 18.0         | (9.7)  | (14.0) |
| SN8S-400JB  | 18.0            | 12.5         | 18.0         | (9.7)  | (14.0) |
| SN8S-500JB  | 18.0            | 12.5         | 18.0         | (9.7)  | (14.0) |
| SN8D-300JB  | 18.5            | 15.5         | 18.0         | (13.0) | (14.0) |
| SN8D-400JB  | 18.5            | 15.5         | 18.0         | (13.0) | (14.0) |
| SN8D-500JB  | 18.5            | 15.5         | 18.0         | (13.0) | (14.0) |

## Environmental Compliance

All KEMET AC Line Filters are RoHS Compliant.



RoHS Compliant

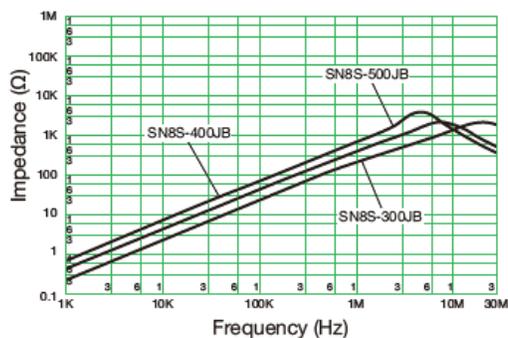
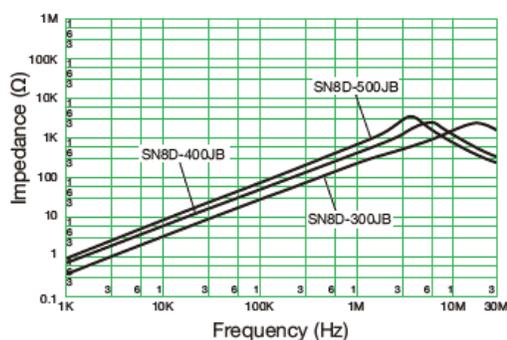
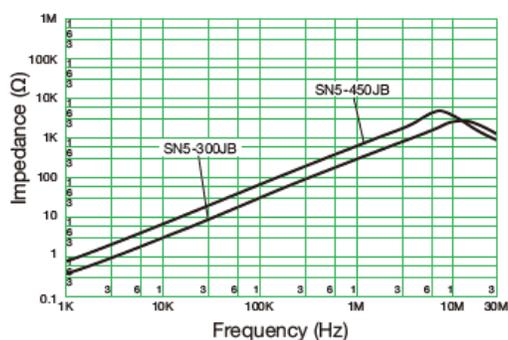
**Table 1 – Ratings & Part Number Reference**

| Part Number | Rated Current AC (A) | Inductance (μH) Minimum | DC Resistance/Line (mΩ) Maximum | Temperature Rise (K) Maximum | Wire Diameter (mm) | Weight (g) Approximate |
|-------------|----------------------|-------------------------|---------------------------------|------------------------------|--------------------|------------------------|
| SN5-300JB   | 1                    | 25                      | 0.080                           | 18                           | 0.4                | 3.0                    |
| SN5-450JB   | 1                    | 64                      | 0.110                           | 25                           | 0.4                | 3.0                    |
| SN8S-300JB  | 2                    | 26                      | 0.055                           | 19                           | 0.6                | 4.8                    |
| SN8S-400JB  | 2                    | 46                      | 0.070                           | 20                           | 0.6                | 5.4                    |
| SN8S-500JB  | 2                    | 72                      | 0.085                           | 23                           | 0.6                | 5.9                    |
| SN8D-300JB  | 2                    | 45                      | 0.070                           | 20                           | 0.6                | 7.6                    |
| SN8D-400JB  | 2                    | 80                      | 0.085                           | 24                           | 0.6                | 8.4                    |
| SN8D-500JB  | 2                    | 125                     | 0.100                           | 27                           | 0.6                | 8.7                    |

## Performance Characteristics

| Item                             | Performance Characteristics                     |
|----------------------------------|---|
| Rated Current AC Range           | 1 – 2 A   |
| Rated Inductance Range           | 25 – 125 μH minimum                             |
| Inductance Measurement Condition | 100 kHz   |
| Wire Type                        | 1 PVF and 1 UEW and 1 PEW                       |
| Thermal Class                    | A (105°C)                                       |
| Operating Temperature Range      | -25°C to +105°C (include self temperature rise) |

## Frequency Characteristics



## Packaging

| Type    | Packaging Type | Pieces per Box |
|---------|----------------|----------------|
| SN5-JB  | Tray           | 1,000          |
| SN8S-JB |                | 420            |
| SN8D-JB |                | 910            |

## 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 and atmospheres should be free of chlorine and sulfur bearing compounds. Temperature fluctuations should be minimized to avoid condensation on the parts. Avoid also storage near strong magnetic fields as this might magnetize the product.

For optimized solderability, AC Line Filters' stock should be used promptly, 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.

Check and evaluate the value of the core temperature rise under actual operating conditions when using.

## Export Control

### For customers in Japan

For products that are controlled items subject to the "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required for export.

### For customers outside Japan

AC Line Filters should not be used or sold for the use in the development, production, stockpiling or utilization of any conventional weapons, mass-destruction weapons (nuclear, chemical, biological weapons or missiles) or any other weapons.

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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 indicated or that other measures may not be required.

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