

## Overview

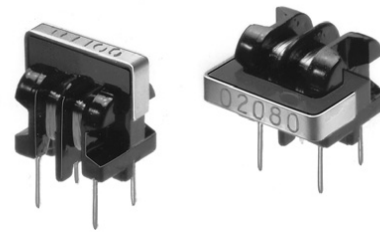
The KEMET SU Coils, SU 9V/9H Type AC line filters are offered in a wide variety of sizes and specifications.

## Applications

- Consumer Electronics
- Common mode choke

## Benefits

- Wide variety of sizes and specifications
- Inductances up to 18 mH
- Rated Currents up to 1.0 A
- DC Resistances as low as 0.3  $\Omega$

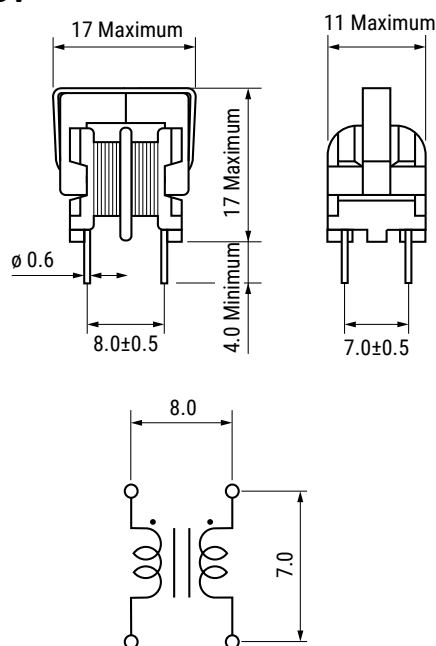


## Part Number System

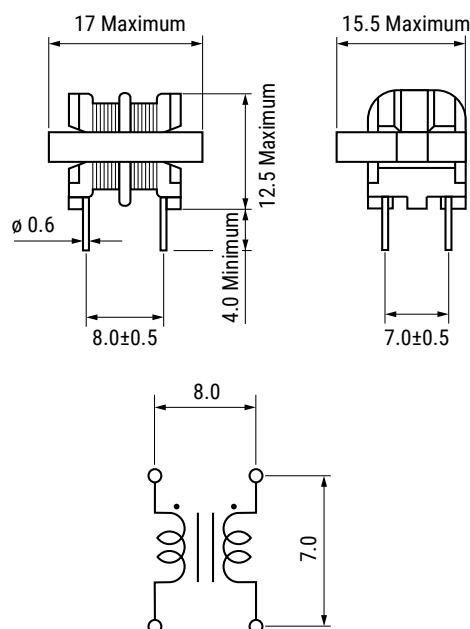
| <b>SU</b> | <b>9</b>       | <b>V-</b>                        | <b>R</b>                                  | <b>02</b>                                                      | <b>140</b>                                                                                                |
|-----------|----------------|----------------------------------|-------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Series    | Core Size (mm) | Core Orientation                 | Core Type                                 | Rated Current (A)                                              | Minimum Inductance (mH)                                                                                   |
| SU        | 9 = 9.0        | V- = Vertical<br>H- = Horizontal | Blank = Standard<br>R = High permeability | 0x = 0.x A (e.g., 02 = 0.2 A)<br>xx = x.x A (e.g., 10 = 1.0 A) | xx0 = xx mH (e.g., 140 = 14 mH)<br>0xx = x.x mH (e.g., 020 = 2.0 mH)<br>00x = 0.x mH (e.g., 005 = 0.5 mH) |

## Dimensions – Millimeters

### SU9V



### SU9H



## Environmental Compliance

All KEMET AC Line Filters are RoHS Compliant.



RoHS Compliant

## Table 1 – Ratings & Part Number Reference

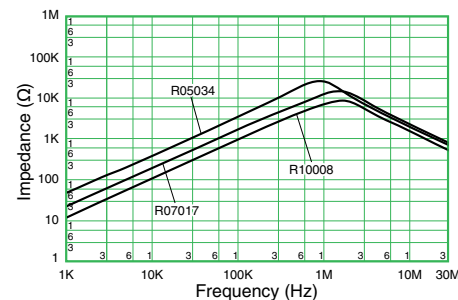
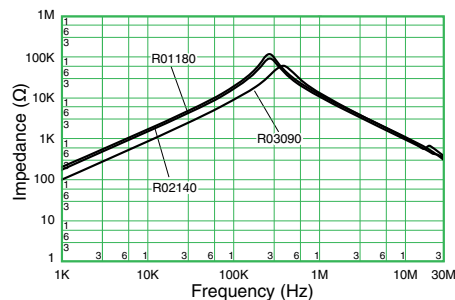
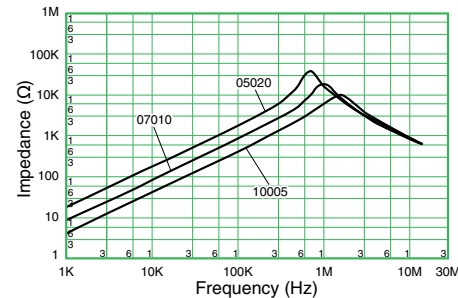
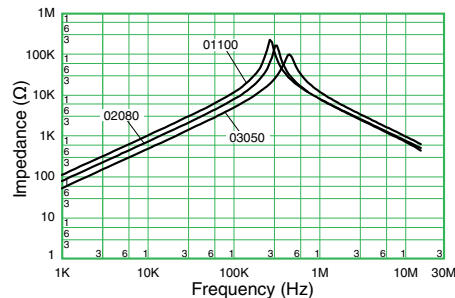
| Part Number   | Rated Current<br>AC (A) | Inductance<br>(mH)<br>Minimum | DC Resistance/<br>Line (Ω)<br>Maximum | Temperature<br>Rise (K)<br>Maximum | Marking | Weight (g)<br>Approximate |
|---------------|-------------------------|-------------------------------|---------------------------------------|------------------------------------|---------|---------------------------|
| SU9(1)-01100  | 0.1                     | 10                            | 8.0                                   | 40                                 | 01100   | 3.0                       |
| SU9(1)-02080  | 0.2                     | 8.0                           | 6.0                                   | 40                                 | 02080   | 3.2                       |
| SU9(1)-03050  | 0.3                     | 5.0                           | 3.0                                   | 40                                 | 03050   | 3.4                       |
| SU9(1)-05020  | 0.5                     | 2.0                           | 1.0                                   | 40                                 | 05020   | 3.5                       |
| SU9(1)-07010  | 0.7                     | 1.0                           | 0.6                                   | 40                                 | 07010   | 3.5                       |
| SU9(1)-10005  | 1.0                     | 0.5                           | 0.3                                   | 40                                 | 10005   | 3.4                       |
| SU9(1)-R01180 | 0.1                     | 18                            | 8.0                                   | 40                                 | R 01180 | 3.0                       |
| SU9(1)-R02140 | 0.2                     | 14                            | 6.0                                   | 40                                 | R 02140 | 3.2                       |
| SU9(1)-R03090 | 0.3                     | 9.0                           | 3.0                                   | 40                                 | R 03090 | 3.4                       |
| SU9(1)-R05034 | 0.5                     | 3.4                           | 1.0                                   | 40                                 | R 05034 | 3.5                       |
| SU9(1)-R07017 | 0.7                     | 1.7                           | 0.6                                   | 40                                 | R 07017 | 3.5                       |
| SU9(1)-R10008 | 1.0                     | 0.8                           | 0.3                                   | 40                                 | R 10008 | 3.4                       |

(1) To complete KEMET part number, insert V for vertical core type or H for horizontal core type.

## Specifications

| Item                             | SU 9V/9H                                |
|----------------------------------|-----------------------------------------|
| Rated Voltage                    | 250 VAC                                 |
| Withstanding Voltage             | 2,400 VAC (2 seconds, between lines)    |
| Insulation Resistance            | > 100 MΩ at 500 VDC (between lines)     |
| Thermal Class                    | E (120°C)                               |
| Operating Temperature Range      | -25°C to T (T = 120 – temperature rise) |
| Inductance Measurement Condition | 1 kHz, 1 V, KC530                       |

## Frequency Characteristics



## Notes on Use

### Shelf Life

- Use within 6 months. If the product is used after a storage period of 6 months or longer, confirm its solderability before use.

### Storage Condition

- Avoid storage in high temperature and high humidity environment, as such condition may deteriorate the solderability of external electrode.
- Avoid storage in atmosphere containing toxic gases or acid (e.g., sulphur and chlorine), as such gas may deteriorate the solderability of external electrode.
- Avoid storage near strong magnetic field, as such condition may magnetize the product.

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