# AC Line Filters SS Coils, SS21V Type



#### **Overview**

The KEMET SS Coils, SS21V 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
- · High inductance in a compact design
- Pin pitch is identical to SS24V Type and SS11V Type, making design and replacement easier
- · Inductances up to 138 mH
- Rated Currents up to 3 A
- DC Resistances as low as 0.07  $\boldsymbol{\Omega}$



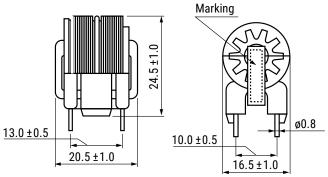
#### **Part Number System**

| SS     | 21             | <b>V</b> -       | R   | 03   | 1380   |  |
|--------|----------------|------------------|---|--|--|--|
| Series | Core Size (mm) | Core Orientation | Core Type                                 | Rated Current (A)  | Minimum Inductance (mH)  |  |
| SS     | 21 = 21.0      | V- = Vertical    | Blank = Standard<br>R = High permeability | 0x = 0.x A (e.g., 03 = 0.3 A)<br>xx = x.x A (e.g., 13 = 1.3 A) | xxx0 = xxx mH (e.g., 1380 = 138 mH)<br>0xxx = xx mH (e.g., 0179 = 17.9 mH)<br>00xx = x.x mH (e.g., 0026 = 2.6 mH)<br>000x = 0.x mH (e.g., 0008 = 0.8 mH) |  |

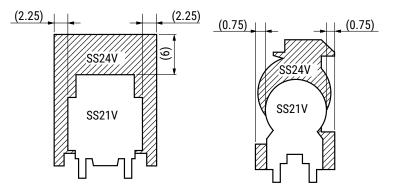


## **Dimensions – Millimeters**

#### SS21V



#### Size Comparison with SS24V Type



# **Environmental Compliance**

All KEMET AC Line Filters are RoHS Compliant.





# Table 1 – Ratings & Part Number Reference

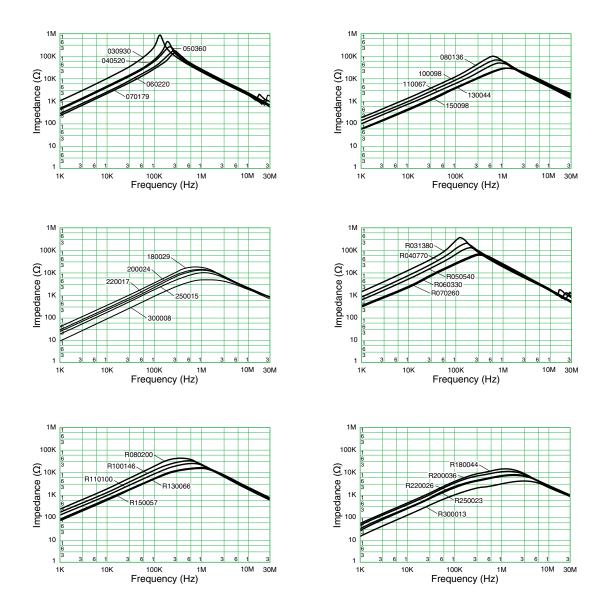
| Part Number   | Rated Current<br>AC (A) | Inductance<br>(mH)<br>Minimum | DC Resistance/<br>Line (Ω)<br>Maximum | Temperature<br>Rise (K)<br>Maximum | Marking     | Weight (g)<br>Approximate |
|---------------|-------------------------|-------------------------------|---------------------------------------|------------------------------------|-------------|---------------------------|
| SS21V-030930  | 0.3                     | 93                            | 5.9                                   | 50                                 | 03 Lot No.  | 12.3                      |
| SS21V-040520  | 0.4                     | 52                            | 5.4                                   | 50                                 | 04 Lot No.  | 12.2                      |
| SS21V-050360  | 0.5                     | 36                            | 2.4                                   | 50                                 | 05 Lot No.  | 12.2                      |
| SS21V-060220  | 0.6                     | 22                            | 1.5                                   | 45                                 | 06 Lot No.  | 12.9                      |
| SS21V-070179  | 0.7                     | 17.9                          | 1.1                                   | 50                                 | 07 Lot No.  | 13.2                      |
| SS21V-080136  | 0.8                     | 13.6                          | 0.8                                   | 45                                 | 08 Lot No.  | 13.4                      |
| SS21V-100098  | 1.0                     | 9.8                           | 0.6                                   | 50                                 | 10 Lot No.  | 13.1                      |
| SS21V-110067  | 1.1                     | 6.7                           | 0.45                                  | 45                                 | 11 Lot No.  | 12.8                      |
| SS21V-130044  | 1.3                     | 4.4                           | 0.35                                  | 50                                 | 13 Lot No.  | 11.5                      |
| SS21V-150038  | 1.5                     | 3.8                           | 0.30                                  | 50                                 | 15 Lot No.  | 12.4                      |
| SS21V-180029  | 1.8                     | 2.9                           | 0.20                                  | 45                                 | 18 Lot No.  | 13.3                      |
| SS21V-200024  | 2.0                     | 2.4                           | 0.15                                  | 50                                 | 20 Lot No.  | 12.6                      |
| SS21V-220017  | 2.2                     | 1.7                           | 0.13                                  | 45                                 | 22 Lot No.  | 12.7                      |
| SS21V-250015  | 2.5                     | 1.5                           | 0.10                                  | 50                                 | 25 Lot No.  | 12.3                      |
| SS21V-300008  | 3.0                     | 0.8                           | 0.07                                  | 50                                 | 30 Lot No.  | 11.7                      |
| SS21V-R031380 | 0.3                     | 138                           | 5.9                                   | 50                                 | R03 Lot No. | 12.3                      |
| SS21V-R040770 | 0.4                     | 77                            | 5.4                                   | 50                                 | R04 Lot No. | 12.2                      |
| SS21V-R050540 | 0.5                     | 54                            | 2.4                                   | 50                                 | R05 Lot No. | 12.2                      |
| SS21V-R060330 | 0.6                     | 33                            | 1.5                                   | 45                                 | R06 Lot No. | 12.9                      |
| SS21V-R070260 | 0.7                     | 26                            | 1.1                                   | 50                                 | R07 Lot No. | 13.2                      |
| SS21V-R080200 | 0.8                     | 20                            | 0.8                                   | 45                                 | R08 Lot No. | 13.4                      |
| SS21V-R100146 | 1.0                     | 14.6                          | 0.6                                   | 50                                 | R10 Lot No. | 13.1                      |
| SS21V-R110100 | 1.1                     | 10                            | 0.45                                  | 45                                 | R11 Lot No. | 12.8                      |
| SS21V-R130066 | 1.3                     | 6.6                           | 0.35                                  | 50                                 | R13 Lot No. | 11.5                      |
| SS21V-R150057 | 1.5                     | 5.7                           | 0.30                                  | 50                                 | R15 Lot No. | 12.4                      |
| SS21V-R180044 | 1.8                     | 4.4                           | 0.20                                  | 45                                 | R18 Lot No. | 13.3                      |
| SS21V-R200036 | 2.0                     | 3.6                           | 0.15                                  | 50                                 | R20 Lot No. | 12.6                      |
| SS21V-R220026 | 2.2                     | 2.6                           | 0.13                                  | 45                                 | R22 Lot No. | 12.7                      |
| SS21V-R250023 | 2.5                     | 2.3                           | 0.10                                  | 50                                 | R25 Lot No. | 12.3                      |
| SS21V-R300013 | 3.0                     | 1.3                           | 0.07                                  | 50                                 | R30 Lot No. | 11.7                      |

# **Specifications**

| Item                             | SS21V                                   |  |  |
|----------------------------------|---|--|--|
| 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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