



### FEATURES

- RoHS compliant
- Radial format
- -40°C to 85°C operating temperature
- Up to 13A ldc
- 10µH to 22mH
- Low DC resistance
- Fully tinned leads
- PCB mounting hole
- Low temperature dependence
- Backward compatible with Sn/Pb soldering systems
- Custom parts available

### DESCRIPTION

The 1400 Series is suitable for many power supply and other general purpose filtering applications. The use of a non-magnetic screw will ensure mechanical stability.

### SELECTION GUIDE

| Order Code | Inductance,<br>(1kHz, 0.1V <sub>AC</sub> ) | DC<br>Current <sup>1</sup> | DC<br>Resistance | Q at f kHz |     | SRF  | Mechanical Dimensions |      |      |      |     | Footprint |     |
|------------|--|----------------------------|------------------|------------|-----|------|-----------------------|------|------|------|-----|-----------|-----|
|            | ±10%                                       | Max.                       | Max.             | Nom.       |     | Nom. | a                     | b    | c    | d    | Øe  | f         | Øg  |
|            | µH   | A                          | Ω                | Q          | f   | MHz  | mm                    |      |      |      |     | mm        |     |
| 1410313C   | 10   | 13                         | 0.007            | 54         | 50  | 20.7 | 27.0                  | 24.4 | 14.0 | 1.30 | 5.5 | 23.9      | 2.6 |
| 1415312C   | 15   | 12                         | 0.009            | 42         | 50  | 12.7 | 27.0                  | 24.4 | 14.0 | 1.30 | 5.5 | 23.9      | 2.6 |
| 1422311C   | 22   | 11                         | 0.011            | 64         | 100 | 9.3  | 27.0                  | 24.4 | 14.0 | 1.30 | 5.5 | 23.9      | 2.6 |
| 1433393C   | 33   | 9.3                        | 0.015            | 27         | 50  | 9.1  | 27.0                  | 24.4 | 14.0 | 1.30 | 5.5 | 23.9      | 2.6 |
| 1447383C   | 47   | 8.3                        | 0.019            | 40         | 100 | 6.0  | 27.0                  | 24.4 | 18.5 | 1.30 | 5.5 | 23.9      | 2.6 |
| 1447385C   | 47   | 8.5                        | 0.021            | 33         | 100 | 6.7  | 26.8                  | 24.4 | 14.0 | 1.20 | 5.5 | 23.8      | 2.4 |
| 1468362C   | 68   | 6.2                        | 0.032            | 32         | 100 | 5.3  | 26.5                  | 24.4 | 14.0 | 1.08 | 5.5 | 23.7      | 2.1 |
| 1468373C   | 68   | 7.3                        | 0.022            | 45         | 100 | 5.3  | 27.0                  | 24.4 | 18.5 | 1.30 | 5.5 | 23.9      | 2.6 |
| 1410454C   | 100  | 5.4                        | 0.042            | 24         | 100 | 4.6  | 26.4                  | 24.4 | 14.0 | 1.02 | 5.5 | 23.6      | 2.0 |
| 1410460C   | 100  | 6.0                        | 0.033            | 37         | 100 | 3.9  | 26.8                  | 24.4 | 18.5 | 1.20 | 5.5 | 23.8      | 2.4 |
| 1410478C   | 100  | 7.8                        | 0.040            | 34         | 50  | 3.3  | 32.4                  | 29.8 | 21.8 | 1.30 | 5.1 | 29.3      | 2.6 |
| 1415440C   | 150  | 4.0                        | 0.069            | 24         | 50  | 3.4  | 26.2                  | 24.4 | 14.0 | 0.90 | 5.5 | 23.5      | 1.8 |
| 1415449C   | 150  | 4.9                        | 0.051            | 34         | 50  | 2.9  | 26.4                  | 24.4 | 18.5 | 1.02 | 5.5 | 23.6      | 2.0 |
| 1415465C   | 150  | 6.5                        | 0.042            | 46         | 100 | 2.4  | 32.2                  | 29.8 | 21.8 | 1.20 | 5.1 | 29.2      | 2.4 |
| 1422435C   | 220  | 3.5                        | 0.096            | 22         | 50  | 2.8  | 26.1                  | 24.4 | 14.0 | 0.85 | 5.5 | 23.5      | 1.7 |
| 1422441C   | 220  | 4.1                        | 0.073            | 33         | 100 | 2.3  | 26.3                  | 24.4 | 18.5 | 0.97 | 5.5 | 23.6      | 1.9 |
| 1422455C   | 220  | 5.5                        | 0.062            | 30         | 50  | 2.2  | 32.1                  | 29.8 | 21.8 | 1.14 | 5.1 | 29.1      | 2.2 |
| 1430430C   | 300  | 3.0                        | 0.140            | 26         | 50  | 2.6  | 25.9                  | 24.4 | 14.0 | 0.75 | 5.5 | 23.4      | 1.5 |
| 1430433C   | 300  | 3.3                        | 0.100            | 37         | 50  | 2.2  | 26.2                  | 24.4 | 18.5 | 0.90 | 5.5 | 23.5      | 1.8 |
| 1430450C   | 300  | 5.0                        | 0.080            | 28         | 50  | 1.7  | 31.8                  | 29.8 | 21.8 | 1.02 | 5.1 | 29.0      | 2.0 |
| 1433428C   | 330  | 2.8                        | 0.150            | 22         | 50  | 2.5  | 25.9                  | 24.4 | 14.0 | 0.76 | 5.5 | 23.4      | 1.5 |
| 1433433C   | 330  | 3.3                        | 0.107            | 29         | 50  | 2.0  | 26.2                  | 24.4 | 18.5 | 0.90 | 5.5 | 23.5      | 1.8 |
| 1433445C   | 330  | 4.5                        | 0.091            | 25         | 50  | 1.6  | 31.8                  | 29.8 | 21.8 | 1.02 | 5.1 | 29.0      | 2.0 |
| 1447423C   | 470  | 2.3                        | 0.222            | 34         | 50  | 2.0  | 25.7                  | 24.4 | 14.0 | 0.67 | 5.5 | 23.3      | 1.3 |
| 1447427C   | 470  | 2.7                        | 0.149            | 25         | 50  | 1.6  | 26.1                  | 24.4 | 18.5 | 0.85 | 5.5 | 23.5      | 1.7 |
| 1447440C   | 470  | 4.0                        | 0.125            | 24         | 50  | 1.4  | 31.7                  | 29.8 | 21.8 | 0.97 | 5.1 | 29.0      | 1.9 |
| 1468420C   | 680  | 2.0                        | 0.276            | 23         | 50  | 1.6  | 25.7                  | 24.4 | 14.0 | 0.67 | 5.5 | 23.3      | 1.3 |
| 1468422C   | 680  | 2.2                        | 0.226            | 28         | 50  | 1.3  | 25.9                  | 24.4 | 18.5 | 0.75 | 5.5 | 23.4      | 1.5 |
| 1468431C   | 680  | 3.1                        | 0.173            | 60         | 10  | 1.0  | 31.6                  | 29.8 | 21.8 | 0.90 | 5.1 | 28.9      | 1.8 |
| 1410516C   | 1.0mH                                      | 1.6                        | 0.419            | 30         | 50  | 1.4  | 25.6                  | 24.4 | 14.0 | 0.60 | 5.5 | 23.2      | 1.2 |
| 1410517C   | 1.0mH                                      | 1.7                        | 0.336            | 35         | 50  | 1.2  | 25.7                  | 24.4 | 18.5 | 0.67 | 5.5 | 23.3      | 1.3 |
| 1410524C   | 1.0mH                                      | 2.4                        | 0.277            | 33         | 50  | 1.0  | 31.4                  | 29.8 | 21.8 | 0.79 | 5.1 | 28.8      | 1.5 |
| 1415513C   | 1.5mH                                      | 1.3                        | 0.630            | 34         | 50  | 1.0  | 25.5                  | 24.4 | 14.0 | 0.54 | 5.5 | 23.1      | 1.0 |
| 1415514C   | 1.5mH                                      | 1.4                        | 0.518            | 47         | 50  | 0.8  | 25.6                  | 24.4 | 18.5 | 0.60 | 5.5 | 23.2      | 1.2 |
| 1415517C   | 1.5mH                                      | 1.7                        | 0.374            | 28         | 50  | 0.7  | 31.3                  | 29.8 | 21.8 | 0.75 | 5.1 | 28.8      | 1.5 |
| 1422509C   | 2.2mH                                      | 0.9                        | 0.916            | 43         | 50  | 0.9  | 25.3                  | 24.4 | 14.0 | 0.48 | 5.5 | 23.1      | 0.9 |
| 1422512C   | 2.2mH                                      | 1.2                        | 0.649            | 33         | 50  | 0.7  | 25.6                  | 24.4 | 18.5 | 0.60 | 5.5 | 23.2      | 1.2 |
| 1422514C   | 2.2mH                                      | 1.4                        | 0.622            | 33         | 50  | 0.6  | 31.1                  | 29.8 | 21.8 | 0.67 | 5.1 | 28.7      | 1.3 |
| 1433507C   | 3.3mH                                      | 0.7                        | 1.428            | 45         | 50  | 0.8  | 25.2                  | 24.4 | 14.0 | 0.43 | 5.5 | 23.0      | 0.8 |
| 1433510C   | 3.3mH                                      | 1.0                        | 1.992            | 20         | 50  | 0.7  | 25.5                  | 24.4 | 18.5 | 0.54 | 5.5 | 23.1      | 1.0 |
| 1433512C   | 3.3mH                                      | 1.2                        | 0.861            | 20         | 50  | 0.5  | 31.0                  | 29.8 | 21.8 | 0.60 | 5.1 | 28.6      | 1.2 |
| 1447506C   | 4.7mH                                      | 0.6                        | 2.200            | 60         | 50  | 0.6  | 25.2                  | 24.4 | 14.0 | 0.39 | 5.5 | 23.0      | 0.7 |
| 1447508C   | 4.7mH                                      | 0.8                        | 1.436            | 65         | 50  | 0.5  | 25.3                  | 24.4 | 18.5 | 0.48 | 5.5 | 23.1      | 0.9 |
| 1447509C   | 4.7mH                                      | 0.9                        | 1.250            | 57         | 10  | 0.5  | 30.9                  | 29.8 | 21.8 | 0.54 | 5.1 | 28.5      | 1.0 |
| 1468505C   | 6.8mH                                      | 0.5                        | 2.810            | 50         | 50  | 0.5  | 25.2                  | 24.4 | 14.0 | 0.39 | 5.5 | 23.0      | 0.7 |
| 1468507C   | 6.8mH                                      | 0.7                        | 2.214            | 47         | 50  | 0.4  | 25.2                  | 24.4 | 18.5 | 0.43 | 5.5 | 23.0      | 0.8 |
| 1468508C   | 6.8mH                                      | 0.8                        | 1.884            | 30         | 50  | 0.4  | 30.7                  | 29.8 | 21.8 | 0.48 | 5.1 | 28.5      | 0.9 |
| 1410604C   | 10mH                                       | 0.4                        | 4.340            | 51         | 50  | 0.4  | 25.1                  | 24.4 | 14.0 | 0.34 | 5.5 | 22.9      | 0.6 |
| 1410605C   | 10mH                                       | 0.5                        | 3.394            | 48         | 50  | 0.3  | 25.2                  | 24.4 | 18.5 | 0.39 | 5.5 | 23.0      | 0.7 |
| 1410606C   | 10mH                                       | 0.6                        | 2.294            | 48         | 50  | 0.2  | 30.9                  | 29.8 | 21.8 | 0.54 | 5.1 | 28.5      | 1.0 |
| 1415604C   | 15mH                                       | 0.4                        | 4.912            | 61         | 10  | 0.2  | 25.1                  | 24.4 | 18.5 | 0.34 | 5.5 | 22.9      | 0.6 |
| 1415605C   | 15mH                                       | 0.5                        | 3.740            | 55         | 10  | 0.2  | 30.6                  | 29.8 | 21.8 | 0.43 | 5.1 | 28.4      | 0.8 |
| 1422604C   | 22mH                                       | 0.4                        | 6.962            | 30         | 50  | 0.2  | 30.5                  | 29.8 | 21.8 | 0.34 | 5.1 | 28.3      | 0.6 |

1 Maximum DC current occurs when either the inductance falls to 60% of its nominal value or when its temperature rise reaches 50°C, whichever is sooner.



**SOLDERING INFORMATION<sup>2</sup>**

|                              |                      |
|------------------------------|----------------------|
| Peak wave solder temperature | 300°C for 10 seconds |
| Pin finish                   | Pure tin dip         |

**TYPICAL CORE/WIRE CHARACTERISTICS**

| Inductance Temperature Coefficient | Resistance Temperature Coefficient | Curie Temperature (T <sub>c</sub> ) | Saturation Flux (B <sub>SAT</sub> ) |
|------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|
| 215ppm                             | 3900ppm                            | 130°C                               | 240mT                               |

**ABSOLUTE MAXIMUM RATINGS**

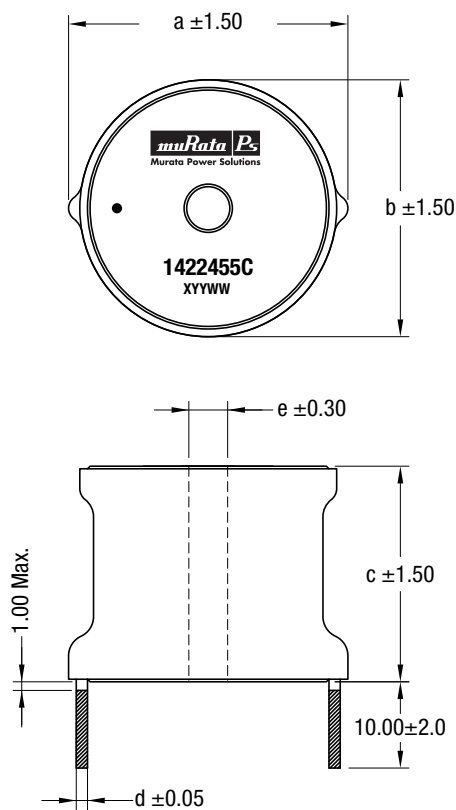
|                                      |                |
|--------------------------------------|----------------|
| Operating free air temperature range | -40°C to 85°C  |
| Storage temperature range            | -55°C to 125°C |

All specifications typical at T<sub>a</sub>=25°C

2 For further information, please visit [www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)

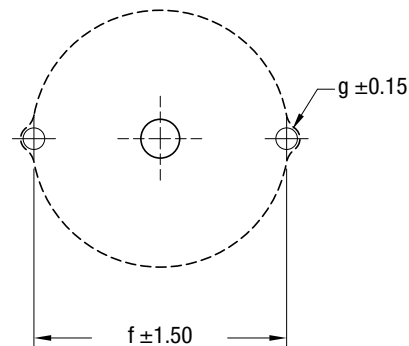
**PACKAGE SPECIFICATIONS**

**MECHANICAL DIMENSIONS**



All dimensions in mm.  
Package weight: 30-65g Typ.  
Dot indicates the innermost turn of the winding.

**RECOMMENDED FOOTPRINT DETAILS**



All dimensions in mm

**PACKAGING DETAILS**

|                        |               |
|------------------------|---------------|
| 21.8mm height products | 15 per carton |
| All other products     | 25 per carton |

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