



FEATURES

- RoHS compliant
- Radial format
- Up to 5.35A I_{DC}
- 4.7μH to 10mH
- Low DC resistance
- Compact size
- MIL-I-23053/5 class III sleeving
- Fully tinned leads
- Supplied in packs of 100
- Custom & axial parts available
- Backward compatible with Sn/Pb soldering systems

DESCRIPTION

The 1800R Series of inductors are particularly suited to use with a wide variety of switching regulators. Offering high current handling with a small footprint, the devices are ideal where space is at a premium.

SELECTION GUIDE

| Order Code | Inductance (1kHz, 0.1V _{AC}) | DC Current ¹ | DC Resistance | Q @ f kHz | | SRF |
|------------|---|-------------------------|---------------|-----------|------|------|
| | ±10% | Max. | Max. | Nom. | | Nom. |
| | μH | A | mΩ | Q | f | MHz |
| 18R472C | 4.7 ² | 5.35 | 9.0 | 106 | 1000 | 35.1 |
| 18R682C | 6.8 | 4.15 | 12.0 | 73 | 500 | 26.3 |
| 18R103C | 10.0 | 3.45 | 15.0 | 59 | 500 | 23.8 |
| 18R153C | 15.0 | 3.00 | 18.0 | 55 | 500 | 17.0 |
| 18R223C | 22.0 | 2.42 | 25.0 | 51 | 500 | 14.1 |
| 18R333C | 33.0 | 2.00 | 40.0 | 48 | 500 | 11.5 |
| 18R473C | 47.0 | 1.65 | 55.0 | 46 | 500 | 9.85 |
| 18R683C | 68.0 | 1.35 | 70.0 | 27 | 100 | 8.29 |
| 18R104C | 100.0 | 1.20 | 100.0 | 40 | 100 | 7.40 |
| 18R154C | 150.0 | 1.10 | 165.0 | 40 | 100 | 5.58 |
| 18R224C | 220.0 | 0.90 | 230.0 | 39 | 100 | 4.00 |
| 18R254C | 250.0 | 0.80 | 255.0 | 40 | 100 | 3.85 |
| 18R334C | 330.0 | 0.73 | 335.0 | 49 | 100 | 3.57 |
| 18R474C | 470.0 | 0.60 | 465.0 | 50 | 100 | 2.81 |
| 18R684C | 680.0 | 0.53 | 630.0 | 48 | 100 | 2.43 |
| 18R105C | 1.0mH | 0.44 | 1.0Ω | 92 | 50 | 1.82 |
| 18R155C | 1.5mH | 0.33 | 1.5Ω | 106 | 50 | 1.60 |
| 18R225C | 2.2mH | 0.30 | 2.2Ω | 106 | 50 | 1.41 |
| 18R335C | 3.3mH | 0.22 | 3.5Ω | 139 | 50 | 1.04 |
| 18R475C | 4.7mH | 0.20 | 4.6Ω | 126 | 40 | 0.87 |
| 18R685C | 6.8mH | 0.15 | 7.0Ω | 143 | 40 | 0.71 |
| 18R106C | 10.0mH | 0.13 | 12.0Ω | 142 | 40 | 0.58 |

TYPICAL CORE/WIRE CHARACTERISTICS

| Inductance Temperature Coefficient | Resistance Temperature Coefficient | Curie Temperature (T _c) | Saturation Flux (B _{SAT}) |
|------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|
| 430ppm | 4000ppm | 190°C | 325mT |

ABSOLUTE MAXIMUM RATINGS

| | |
|--------------------------------------|----------------|
| Operating free air temperature range | 0°C to 70°C |
| Storage temperature range | -55°C to 125°C |

SOLDERING INFORMATION³

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

All specifications typical at T_a=25°C

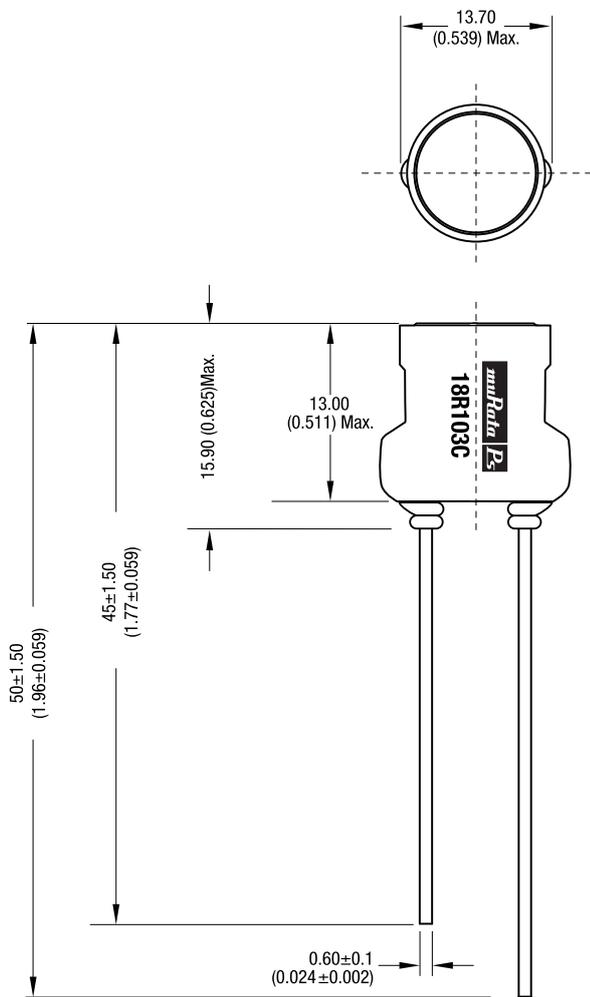
- 1 Maximum DC current occurs when either the inductance falls to 90% of its nominal value or when its temperature rise reaches 30°C, whichever is sooner.
- 2 Tolerance ±15%.
- 3 For further information, please visit www.murata-ps.com/rohs



For full details go to
www.murata-ps.com/rohs

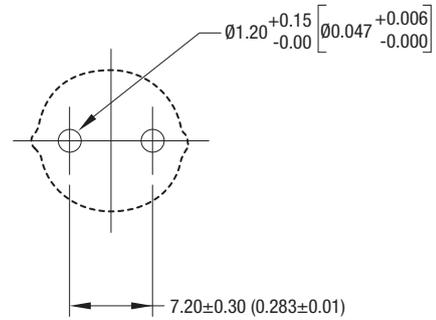
PACKAGE SPECIFICATIONS

MECHANICAL DIMENSIONS



All dimensions in mm (inches). Package weight 4.6g Typ.

RECOMMENDED FOOTPRINT DETAILS



All dimensions in mm (inches)

Murata Power Solutions, Inc.
11 Cabot Boulevard, Mansfield, MA 02048-1151 U.S.A.
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