



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

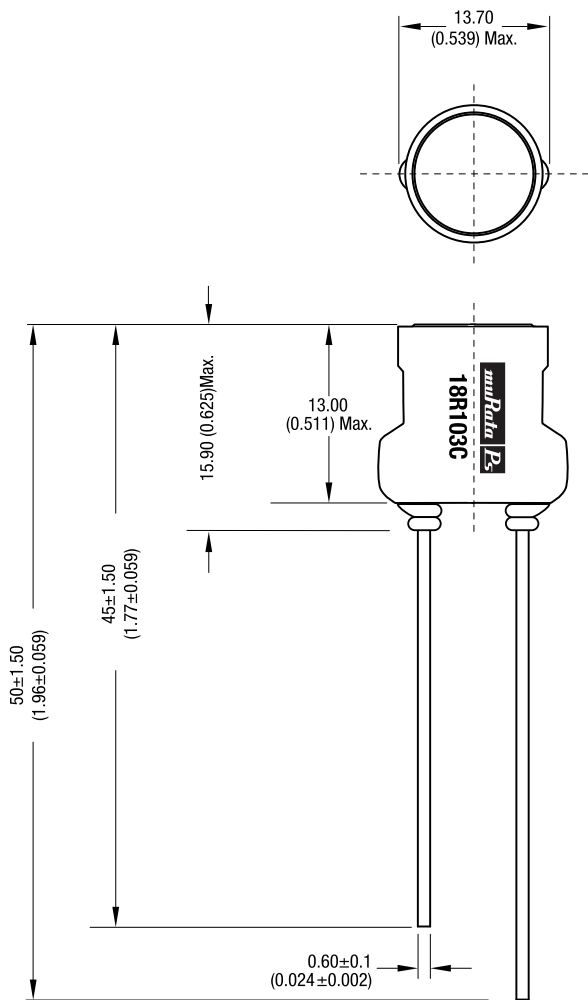
- 1 Maximum DC current occurs when either the inductance falls to 90% of its nominal value or when its temperature rise reaches 30°C, whichever is sooner.
- 2 Tolerance ±15%.
- 3 For further information, please visit www.murata-ps.com/rohs



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

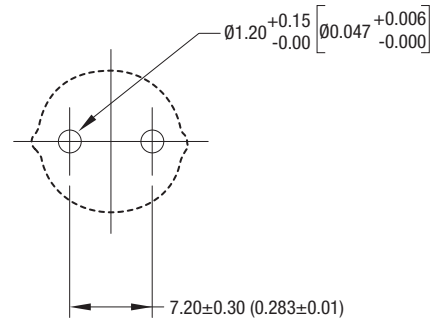
PACKAGE SPECIFICATIONS

MECHANICAL DIMENSIONS



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

RECOMMENDED FOOTPRINT DETAILS



All dimensions in mm (inches)

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