



## FEATURES

- RoHS compliant
- Radial format
- Up to 5.35A I<sub>DC</sub>
- 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 <sub>AC</sub> )	DC Current <sup>1</sup>	DC Resistance	Q @ f kHz		SRF
	±10%	Max.	Max.	Nom.		Nom.
	μH	A	mΩ	Q	f	MHz
18R472C	4.7 <sup>2</sup>	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 <sub>C</sub> )	Saturation Flux (B <sub>SAT</sub> )
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 INFORMATION<sup>3</sup>

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



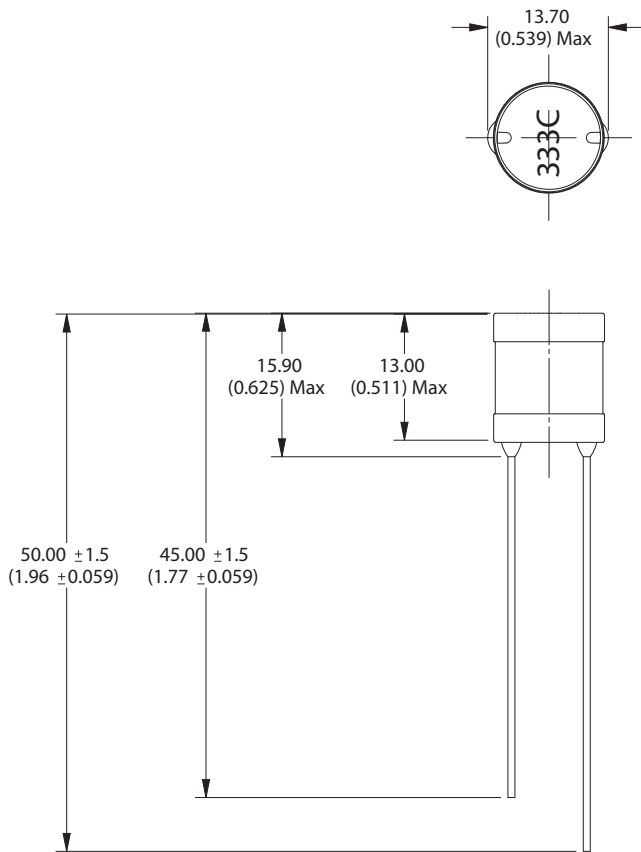
For full details go to  
[www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)

All specifications typical at T<sub>A</sub> = 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](http://www.murata-ps.com/rohs)

**PACKAGE SPECIFICATIONS**

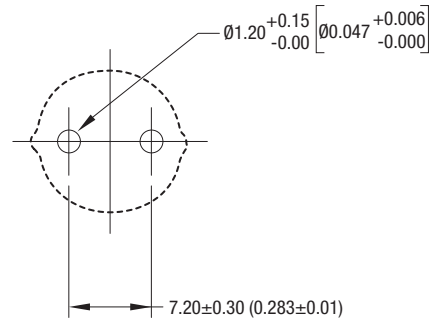
**MECHANICAL DIMENSIONS**



All dimensions in mm (inches).

Package weight 4.6g Typ.

**RECOMMENDED FOOTPRINT DETAILS**



All dimensions in mm (inches)

**DISCLAIMER**

Unless otherwise stated in the datasheet, all products are designed for standard commercial and industrial applications and NOT for safety-critical and/or life-critical applications.

Particularly for safety-critical and/or life-critical applications, i.e. applications that may directly endanger or cause the loss of life, inflict bodily harm and/or loss or severe damage to equipment/property, and severely harm the environment, a prior explicit written approval from Murata is strictly required. Any use of Murata standard products for any safety-critical, life-critical or any related applications without any prior explicit written approval from Murata shall be deemed unauthorised use.

These applications include but are not limited to:

- Aircraft equipment
- Aerospace equipment
- Undersea equipment
- Power plant control equipment
- Medical equipment
- Transportation equipment ( automobiles, trains, ships, etc.)
- Traffic signal equipment
- Disaster prevention / crime prevention equipment
- Data Processing equipment

Murata makes no express or implied warranty, representation, or guarantee of suitability, fitness for any particular use/purpose and/or compatibility with any application or device of the buyer, nor does Murata assume any liability whatsoever arising out of unauthorised use of any Murata product for the application of the buyer. The suitability, fitness for any particular use/purpose and/or compatibility of Murata product with any application or device of the buyer remain to be the responsibility and liability of the buyer.

Buyer represents and agrees that it has all the necessary expertise to create and implement safeguards that anticipate dangerous consequences of failures, monitor failures and their consequences, lessen the likelihood of failures that might cause harm, and take appropriate remedial actions. Buyer will fully indemnify and hold Murata, its affiliated companies, and its representatives harmless against any damages arising out of unauthorised use of any Murata products in any safety-critical and/or life-critical applications.

Remark: Murata in this section refers to Murata Manufacturing Company and its affiliated companies worldwide including, but not limited to, Murata Power Solutions.



This product is subject to the following [operating requirements](https://www.murata.com/en-eu/products/power/requirements) and the [Life and Safety Critical Application Sales Policy](https://www.murata.com/en-eu/products/power/requirements):

Refer to: <https://www.murata.com/en-eu/products/power/requirements>

Murata Power Solutions (Milton Keynes) Ltd. makes no representation that the use of its products in the circuits described herein, or the use of other technical information contained herein, will not infringe upon existing or future patent rights. The descriptions contained herein do not imply the granting of licenses to make, use, or sell equipment constructed in accordance therewith. Specifications are subject to change without notice.  
© 2021 Murata Power Solutions (Milton Keynes) Ltd.