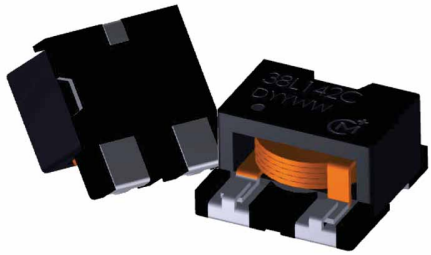
Murata Power Solutions

3800 Series

Flat Coil SM Power Inductors



FEATURES

- RoHS compliant
- High current, low DCR
- Surface mount
- UL94 V-0 package materials
- Pick & place compatible
- J-STD-020D reflow
- Backward compatible with Sn/Pb soldering systems

DESCRIPTION

The 3800 series is a range of surface mount, flat coil wound power inductors that is designed for use where high current and low loss is essential, such as in laptop computers and plasma screens.

SELECTION GUIDE

Order Code	Inductance (100kHz, 0.1VAC) ±20% µH	DC Current[1] Max. A	Saturation Current[2] Typ. A	DC Resistance Max. mΩ	Recommended Alternative
Discontinued					
38L361C	0.36 ±30%	18	27	1.8	Contact Murata
38L801C	0.80	16	20	2.5	Contact Murata
38L142C	1.40	12.0	15	3.7	Contact Murata
38L222C	2.20	9.6	12	5	Contact Murata
38L322C	3.20	7.8	10	6.8	Contact Murata
38L432C	4.30	6.8	8.8	9.7	Contact Murata
38L572C	5.70	5.8	7.3	11.9	Contact Murata
38L722C	7.20	5.3	6.6	15.5	Contact Murata
38L882C	8.80	4.8	5.9	19.6	Contact Murata
38S221C	0.22 ±30%	18	35	2.2	Contact Murata
38S451C	0.45	16	27	2.6	Contact Murata
38S801C	0.80	12.5	20	3.7	Contact Murata
38S132C	1.30	10.5	17	5	Contact Murata
38S182C	1.80	9.0	14	6.8	Contact Murata
38S252C	2.50	7.2	12	9.7	Contact Murata
38S322C	3.20	6.5	10	11.9	Contact Murata
38S402C	4.00	5.5	9.1	15.1	Contact Murata
38S502C	5.00	4.9	8.1	20.3	Contact Murata
38H151C	0.15 ±30%	18	38	1.9	Contact Murata
38H301C	0.30 ±30%	16	32	2.2	Contact Murata
38H501C	0.50	12.5	24	3.7	Contact Murata
38H801C	0.80	10.5	20	5	Contact Murata
38H122C	1.20	9	17	6.8	Contact Murata
38H152C	1.50	7.2	14	9.5	Contact Murata
38H202C	2.00	6.5	12	11.8	Contact Murata
38H252C	2.50	5.5	11	15.1	Contact Murata
38H302C	3.00	4.9	9.4	19.4	Contact Murata

ABSOLUTE MAXIMUM RATINGS

Operating temperature range	-40°C to +130°C
Storage temperature range	-40°C to +150°C

SOLDERING INFORMATION[3]

Peak reflow temperature	245°C
Pin finish	Matte tin
Moisture sensitivity level	1

PACKAGING INFORMATION

Tape & Reel	650 per reel

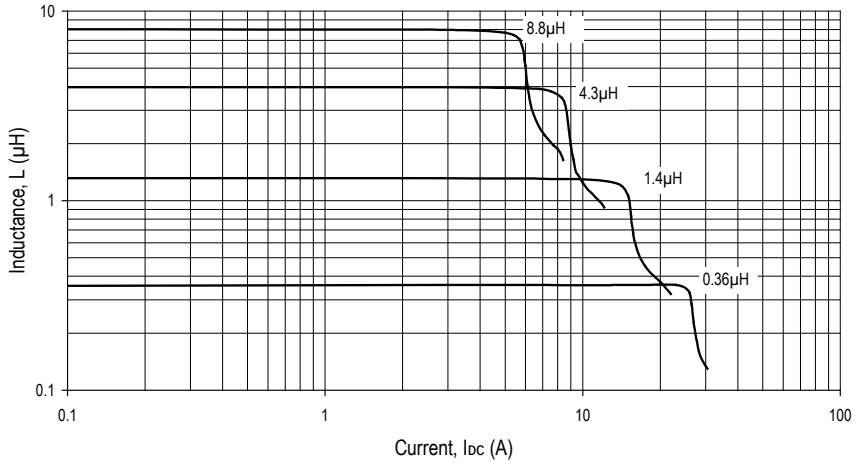
RoHS COMPLIANT

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

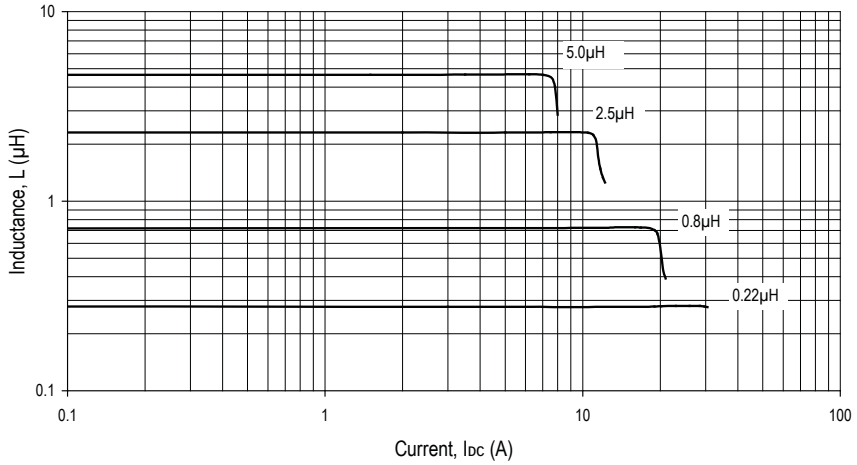
All specifications typical at T_A=25°C

1 The maximum DC Current is the value at which the inductance falls to 65% (tolerance ±30%) or 75% (tolerance: ±20%) of its zero current value or until its temperature rise reaches 40°C, whichever is sooner.
2 The saturation current is the continuous current at 20°C ambient at which the inductance falls to 65% (tolerance: ±30%) or 75% (tolerance: ±20%) of its zero current value.
3 For further information, please visit www.murata-ps.com/rohs
4 Terminal 3 is open-circuit and for mounting stability only.

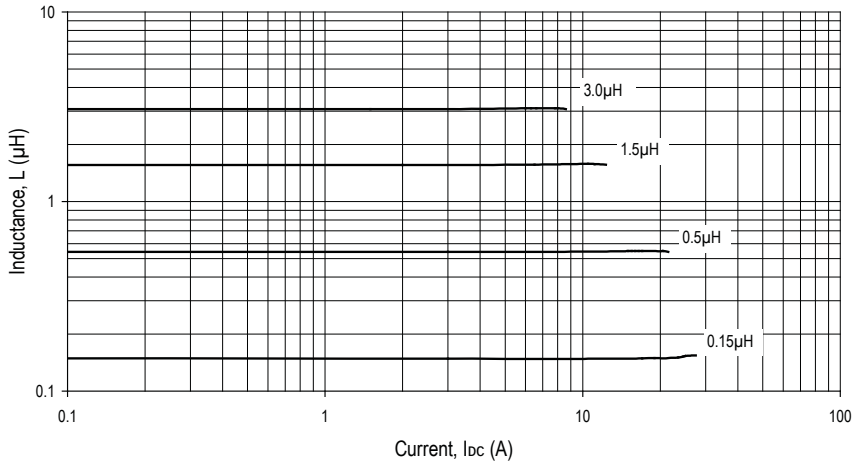
INDUCTANCE Vs CURRENT (LOW DCR TYPES)



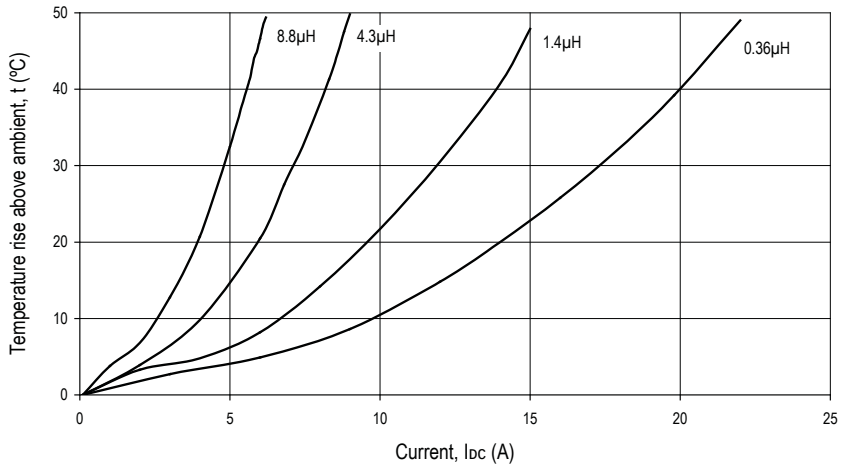
INDUCTANCE Vs CURRENT (STANDARD TYPES)



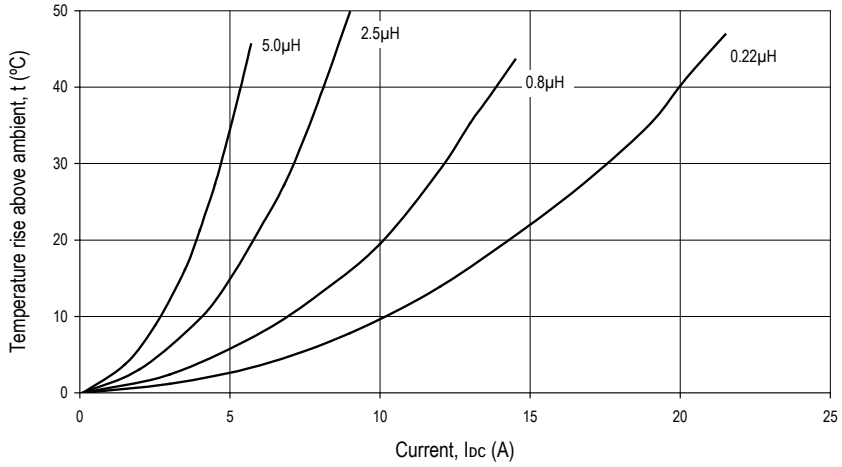
INDUCTANCE Vs CURRENT (HIGH POWER TYPES)



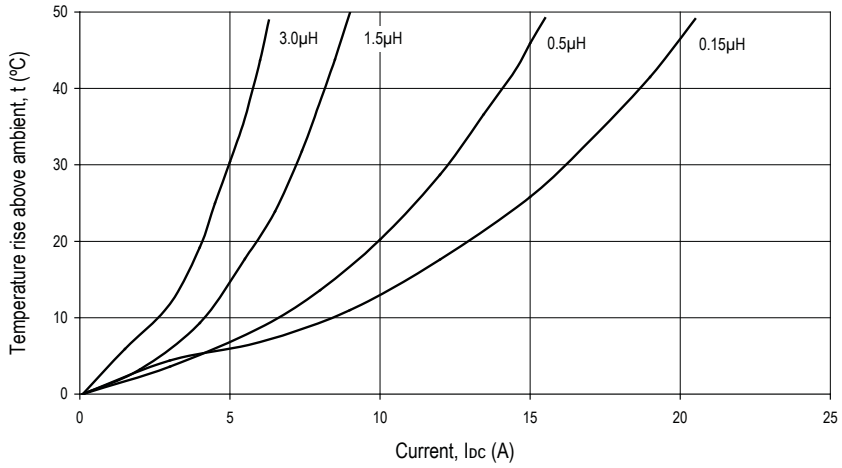
TEMPERATURE Vs CURRENT (LOW DCR TYPES)



TEMPERATURE Vs CURRENT (STANDARD TYPES)

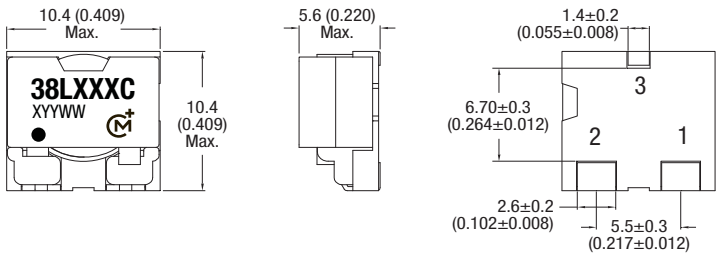


TEMPERATURE Vs CURRENT (HIGH POWER TYPES)



PACKAGE SPECIFICATIONS

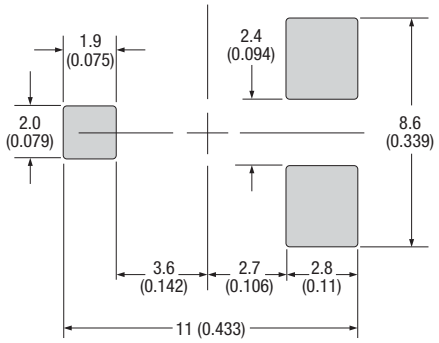
MECHANICAL DIMENSIONS[4]



All dimensions in mm (inches).

Package weight: 1.7g Typ.

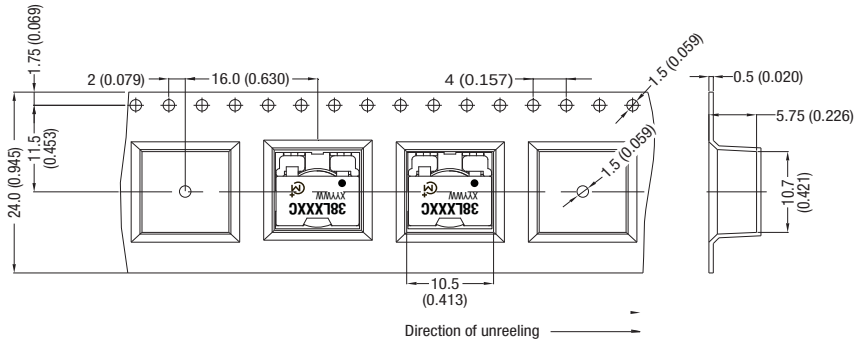
RECOMMENDED FOOTPRINT DETAILS



All dimensions in mm (inches).

TAPE & REEL SPECIFICATIONS

TAPE OUTLINE DIMENSIONS



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.

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.