



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

### ABSOLUTE MAXIMUM RATINGS

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

### SOLDERING INFORMATION<sup>3</sup>

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

### PACKAGING INFORMATION

|             |              |
|-------------|--------------|
| Tape & Reel | 650 per reel |
|-------------|--------------|

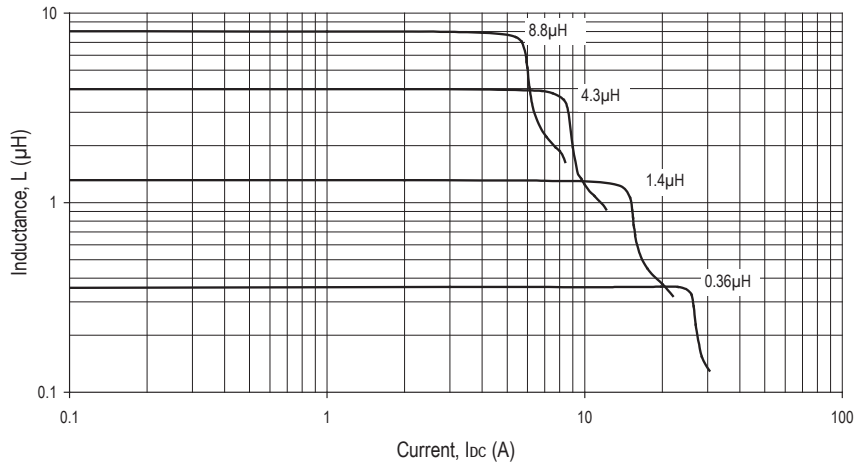
All specifications typical at T<sub>a</sub>=25°C

- 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](http://www.murata-ps.com/rohs)
- 4 Terminal 3 is open-circuit and for mounting stability only.

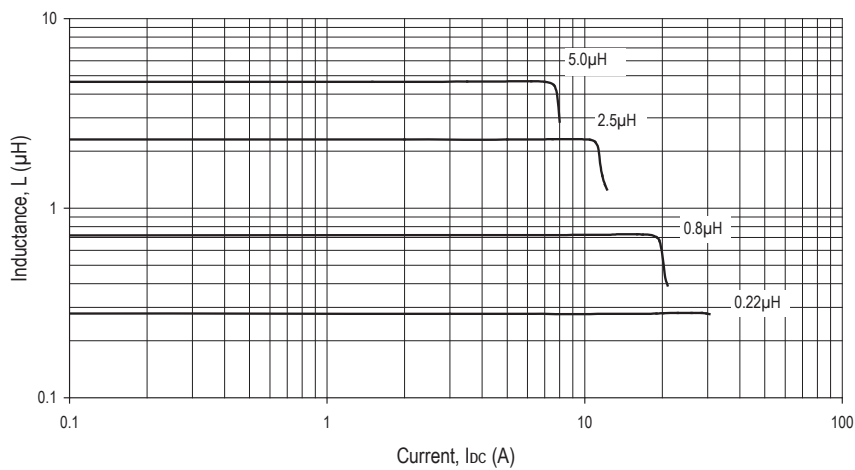


For full details go to  
[www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)

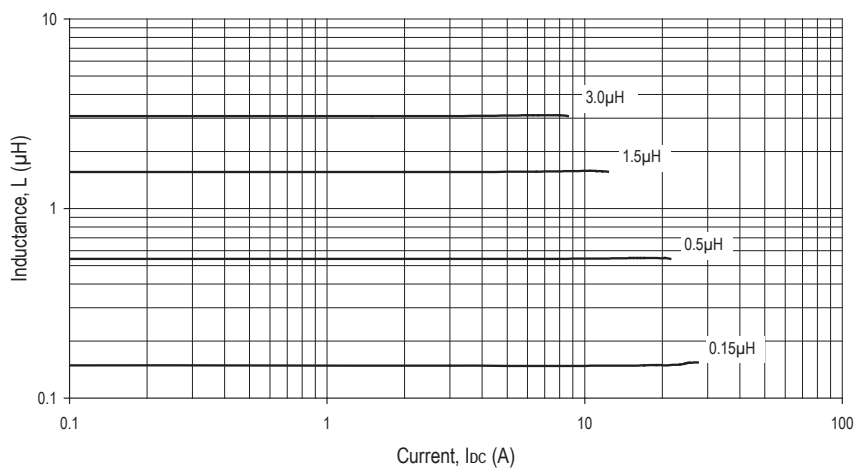
**INDUCTANCE Vs CURRENT (LOW DCR TYPES)**



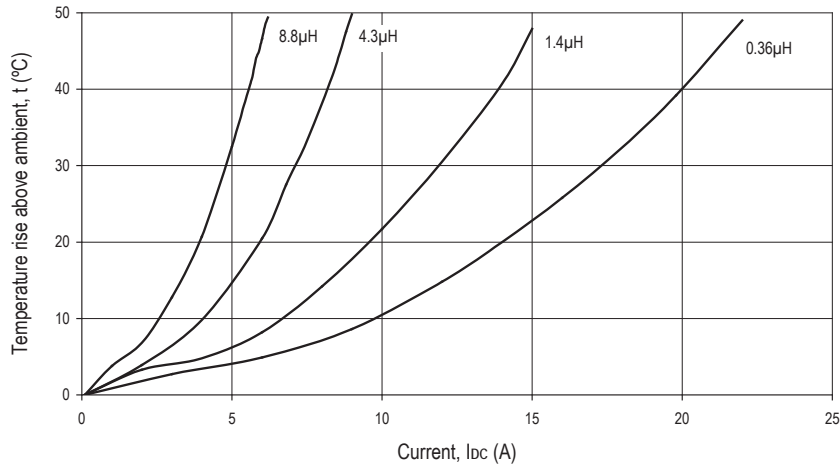
**INDUCTANCE Vs CURRENT (STANDARD TYPES)**



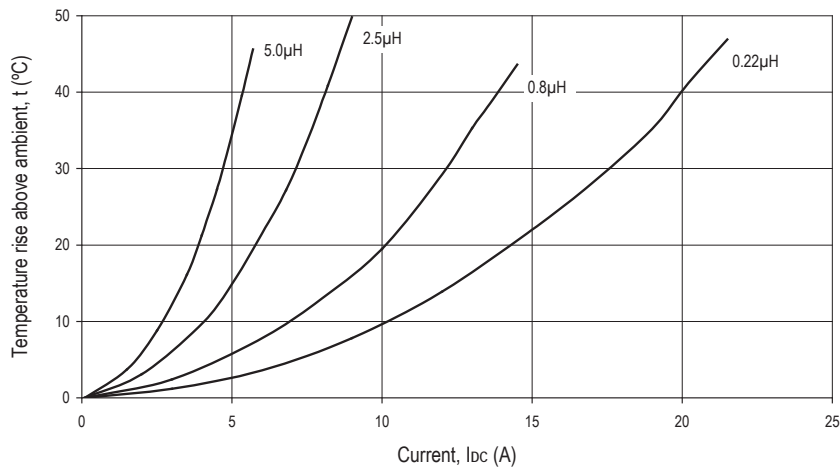
**INDUCTANCE Vs CURRENT (HIGH POWER TYPES)**



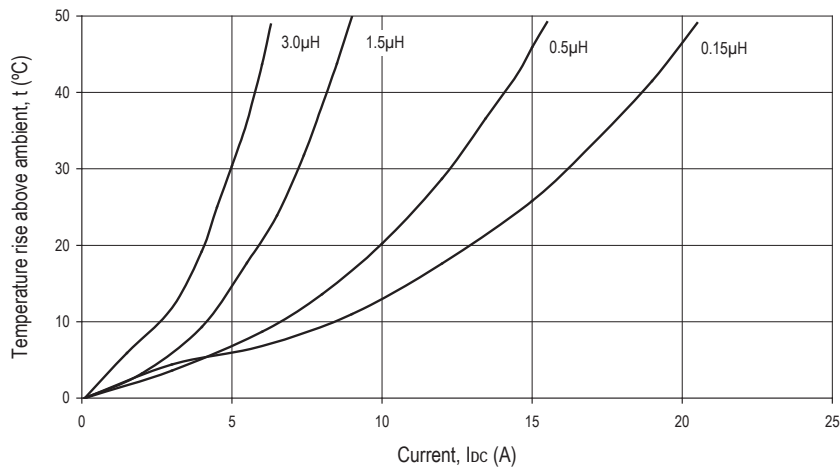
**TEMPERATURE Vs CURRENT (LOW DCR TYPES)**



**TEMPERATURE Vs CURRENT (STANDARD TYPES)**

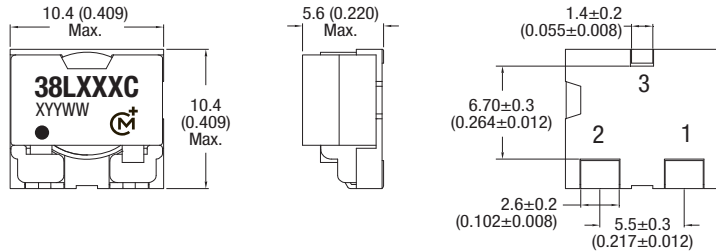


**TEMPERATURE Vs CURRENT (HIGH POWER TYPES)**



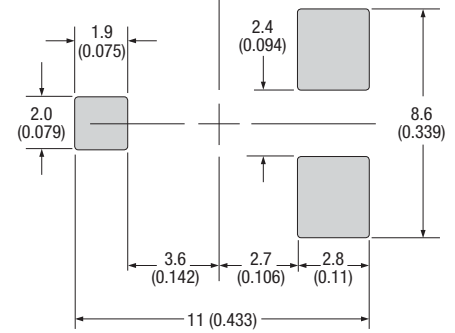
**PACKAGE SPECIFICATIONS**

**MECHANICAL DIMENSIONS<sup>1</sup>**



All dimensions in mm (inches).  
Package weight: 1.7g Typ.

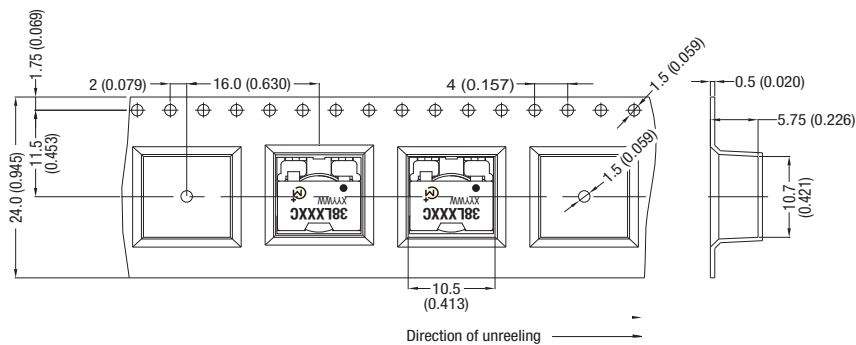
**RECOMMENDED FOOTPRINT DETAILS**



All dimensions in mm (inches).

**TAPE & REEL SPECIFICATIONS**

**TAPE OUTLINE DIMENSIONS**



All dimensions in mm (inches).