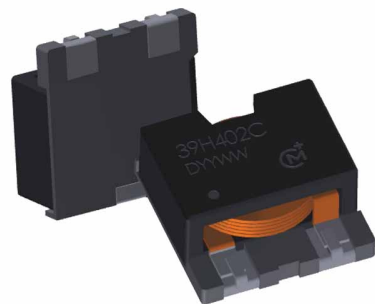




## FEATURES

- RoHS compliant
- Compact size
- Surface mount
- UL94 V-0 package materials
- Pick & place compatible
- J-STD-020D reflow
- Backward compatible with Sn/Pb soldering systems

## DESCRIPTION

The 3900 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 laptop computers and plasma screens.

# 3900 Series

Flat Coil SM Power Inductors

## 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 | Recommended<br>Alternative |
|------------------|---------|---------------------------------------------|----------------------------|------------------------------------|------------------|----------------------------|
|                  |         | ±20%                                        | Max.                       | Typ.                               | Max.             |                            |
|                  |         | μH                                          | A                          | A                                  | mΩ               |                            |
| NRND             |         |                                             |                            |                                    |                  |                            |
| Standard Type    | 39S681C | 0.68 ±30%                                   | 19.5                       | 20.4                               | 1.9              | Contact Murata             |
|                  | 39S152C | 1.50 ±30%                                   | 13.5                       | 14.0                               | 2.5              | Contact Murata             |
|                  | 39S252C | 2.50                                        | 10.0                       | 10.0                               | 3.9              | Contact Murata             |
|                  | 39S402C | 4.00                                        | 8.3                        | 8.3                                | 5.4              | Contact Murata             |
|                  | 39S602C | 6.00                                        | 6.7                        | 6.7                                | 8.0              | Contact Murata             |
|                  | 39S822C | 8.20                                        | 5.8                        | 5.8                                | 11.4             | Contact Murata             |
|                  | 39S103C | 10.0                                        | 5.0                        | 5.0                                | 13.5             | Contact Murata             |
| High Power Type  | 39H471C | 0.47 ±30%                                   | 19.5                       | 28.8                               | 1.9              | Contact Murata             |
|                  | 39H102C | 1.00                                        | 17.5                       | 20.0                               | 2.5              | Contact Murata             |
|                  | 39H182C | 1.80                                        | 13.5                       | 15.3                               | 3.9              | Contact Murata             |
|                  | 39H282C | 2.80                                        | 11.0                       | 12.3                               | 5.4              | Contact Murata             |
|                  | 39H402C | 4.00                                        | 9.7                        | 10.3                               | 8.0              | Contact Murata             |
|                  | 39H562C | 5.60                                        | 8.2                        | 8.8                                | 11.4             | Contact Murata             |
|                  | 39H722C | 7.20                                        | 6.6                        | 7.8                                | 13.5             | Contact Murata             |
| Ultra Power Type | 39U351C | 0.35 ±30%                                   | 19.5                       | 35.0                               | 1.9              | Contact Murata             |
|                  | 39U801C | 0.80 ±30%                                   | 18.0                       | 25.7                               | 2.5              | Contact Murata             |
|                  | 39U142C | 1.40                                        | 13.5                       | 19.2                               | 3.9              | Contact Murata             |
|                  | 39U222C | 2.20                                        | 11.0                       | 14.8                               | 5.4              | Contact Murata             |
|                  | 39U322C | 3.20                                        | 9.7                        | 12.8                               | 8.0              | Contact Murata             |
|                  | 39U432C | 4.30                                        | 8.2                        | 11                                 | 11.4             | Contact Murata             |
|                  | 39U562C | 5.60                                        | 6.6                        | 9.5                                | 13.5             | Contact Murata             |

## ABSOLUTE MAXIMUM RATINGS

|                             |                 |
|-----------------------------|-----------------|
| Operating temperature range | -40°C to +125°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 | 550 per reel |
|-------------|--------------|

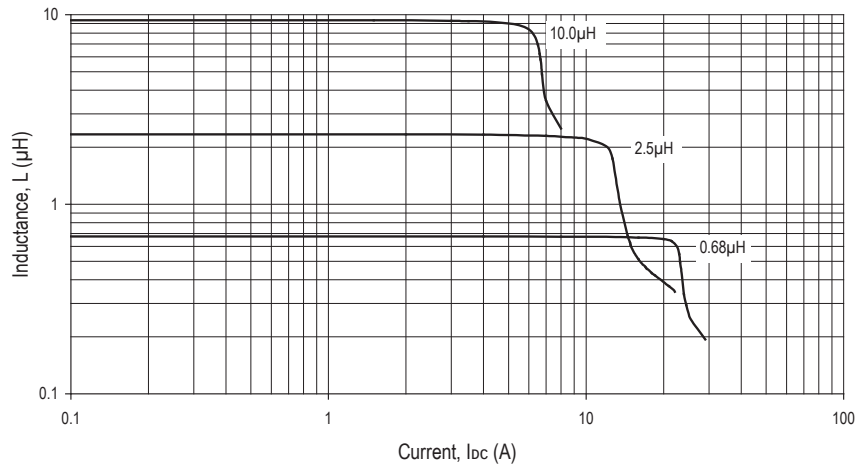
All specifications typical at T<sub>A</sub>=25°C

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

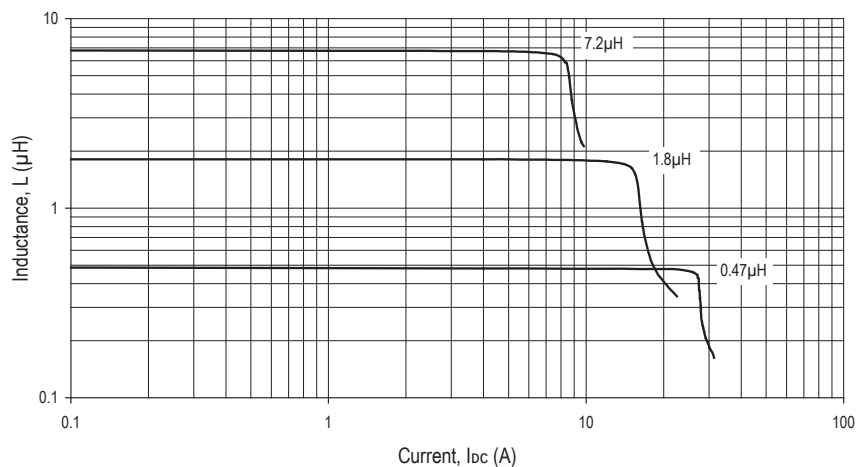


For full details go to  
[www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)

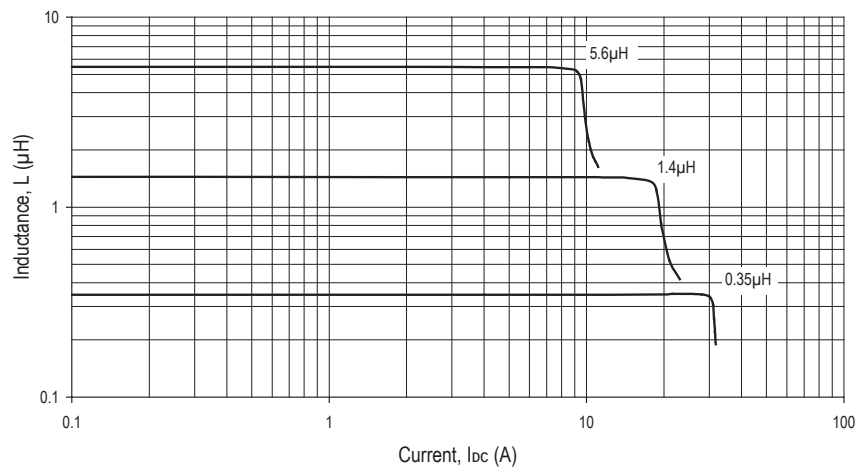
**INDUCTANCE Vs CURRENT (STANDARD TYPE)**



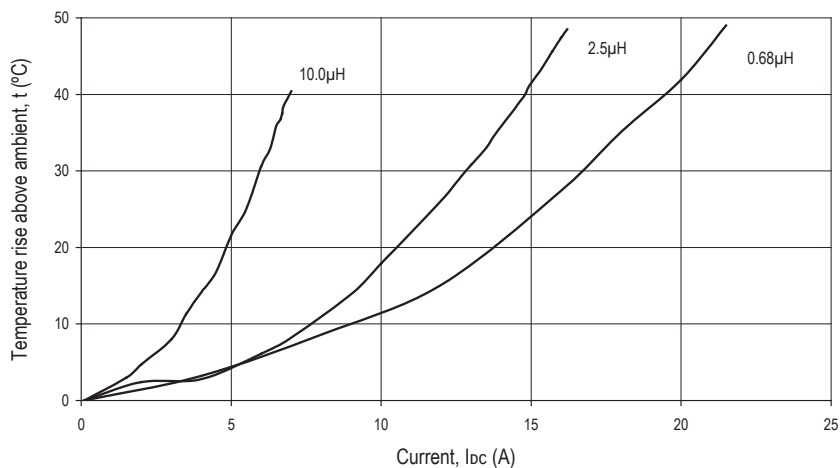
**INDUCTANCE Vs CURRENT (HIGH POWER TYPE)**



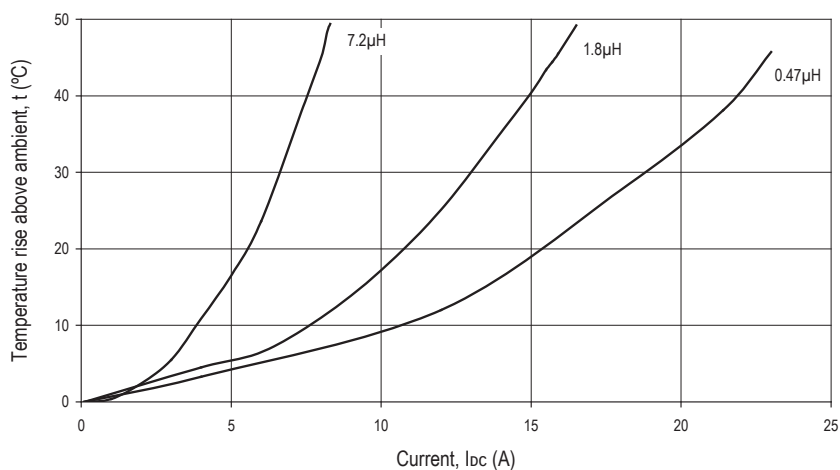
**INDUCTANCE Vs CURRENT (ULTRA HIGH POWER TYPE)**



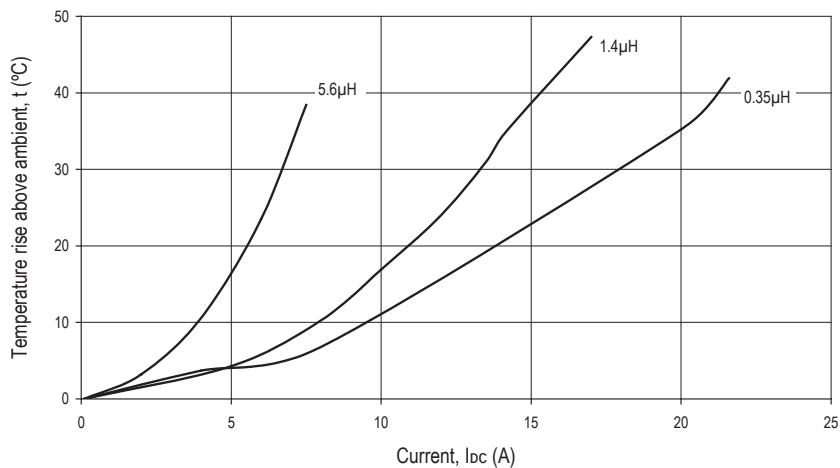
**TEMPERATURE Vs CURRENT (STANDARD TYPE)**



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

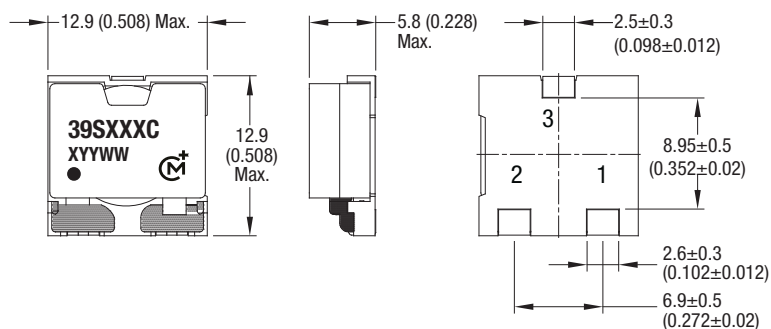


**TEMPERATURE Vs CURRENT (ULTRA HIGH POWER TYPE)**

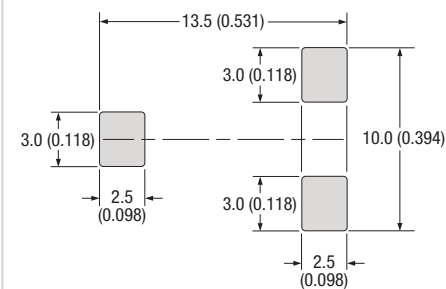


## PACKAGE SPECIFICATIONS

### MECHANICAL DIMENSIONS<sup>4</sup>

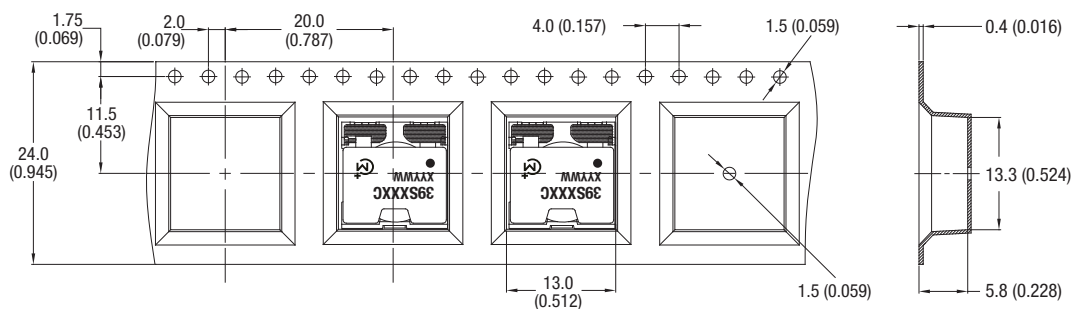


### RECOMMENDED FOOTPRINT DETAILS



## TAPE & REEL SPECIFICATIONS

### TAPE OUTLINE DIMENSIONS



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- Data Processing equipment

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