

## New Product

### SURFACE MOUNT SHIELDED POWER INDUCTOR SERIES STS1305

#### FEATURES

- RoHS Compliant
- High current handling capacity
- Low profile
- Low noise, due to composite construction
- High frequency up to 5MHz

#### ELECTRICAL SPECIFICATIONS

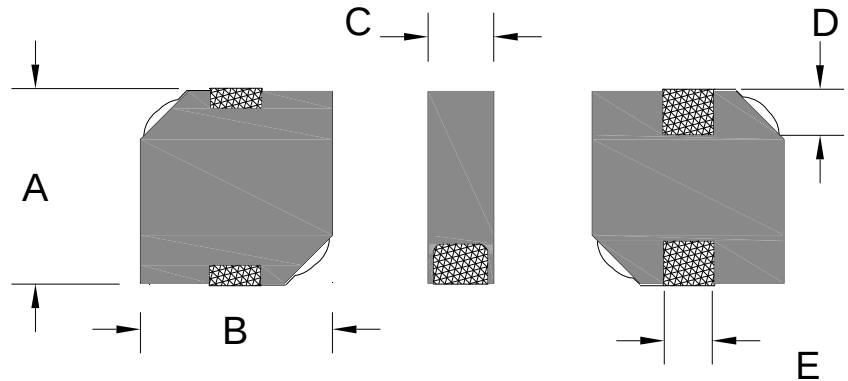
- Inductance range 0.47uH to 10.0uH
- Test condition 1Vrms @ 100kHz
- Test equipment Quadtech 1750 LCR Meter

#### PHYSICAL SPECIFICATIONS

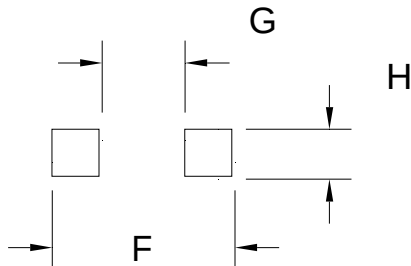
- Operating temp. -55°C to +125°C
- Core Mixed material
- Packaging T & R 500 pieces per reel
- Tape & reel spec. Tape 24 mm embossed carrier
- Reel 330 mm paper reel

#### Dimensions in millimeters

|                    |           |
|--------------------|-----------|
| Length A           | 13.9 max  |
| Width B            | 13.5 max  |
| Height C           | 5.2 max   |
| Terminal length D  | 2.5 ± 0.5 |
| Terminal width E   | 3.0 ± 0.5 |
| Footprint length F | 15 ref    |
| Pad spacing G      | 7 ref     |
| Pad width H        | 4.5 ref   |



#### Suggested PCB layout



#### Notes:

1. Based on  $\Delta T$  approximately 40°C
2. L drops 20% typical

All test data based on 25°C ambient

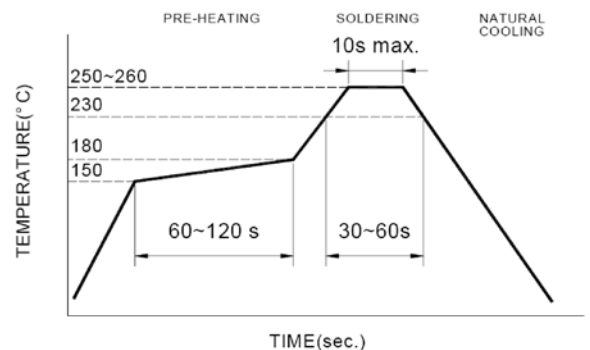
Part temperature (ambient + temp rise) must not exceed 125°C under worst case operating conditions.

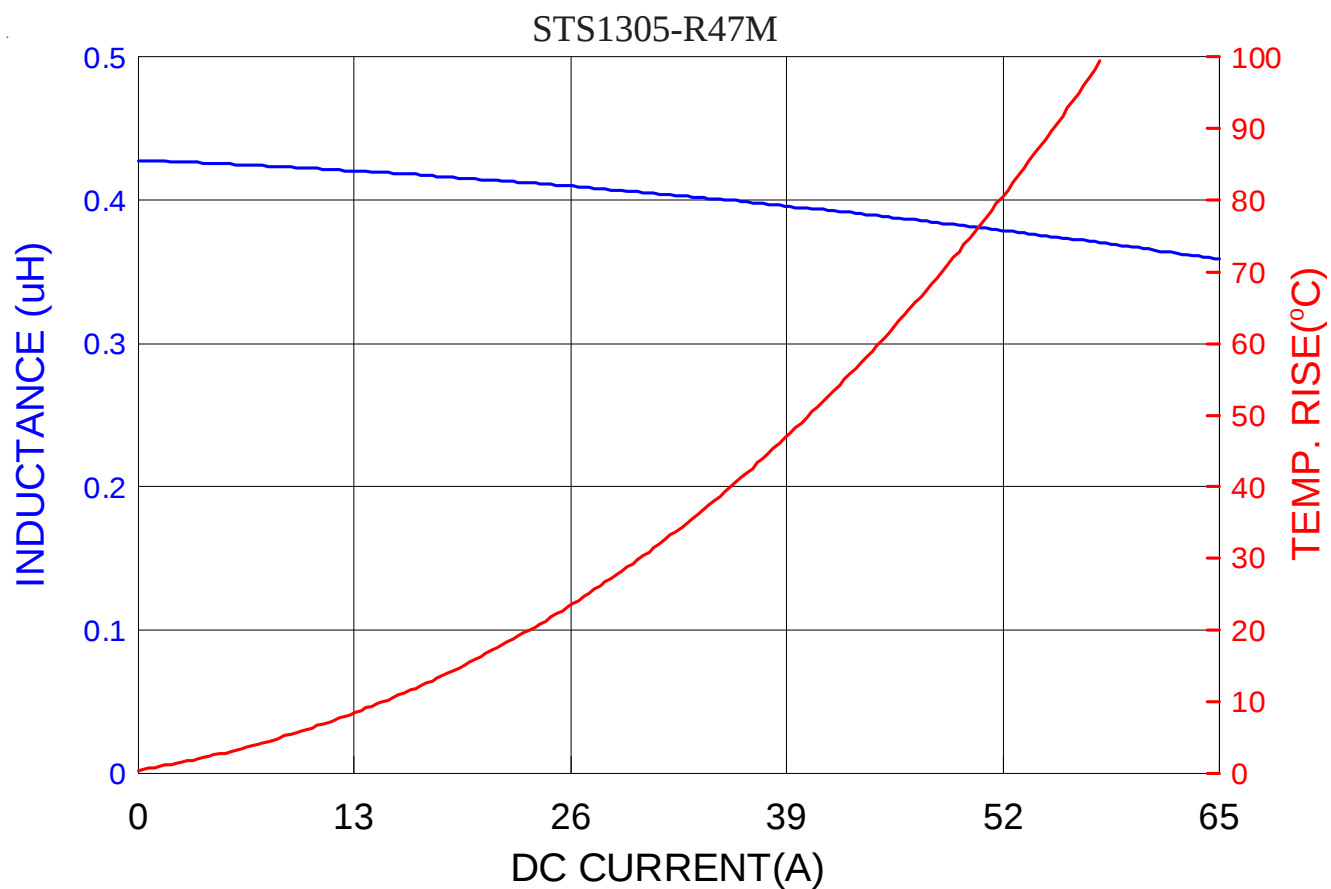
Circuit design, components, PCB trace size, airflow and other cooling provisions all effect the part temperature.

#### SPECIFICATIONS

| Part Number  | L(uH) | Tol % ± | DCR (ohms) max | Rated Current (A) (Note 1) | Saturation Current (A) (Note 2) |
|--------------|-------|---------|----------------|----------------------------|---------------------------------|
| STS1305-R47M | 0.47  | 20      | 0.0013         | 38                         | 45                              |
| STS1305-R68M | 0.68  | 20      | 0.0017         | 34                         | 39                              |
| STS1305-1R0M | 1.0   | 20      | 0.0025         | 29                         | 35                              |
| STS1305-1R5M | 1.5   | 20      | 0.0041         | 23                         | 29                              |
| STS1305-2R2M | 2.2   | 20      | 0.0055         | 20                         | 27                              |
| STS1305-3R3M | 3.3   | 20      | 0.0092         | 15                         | 19                              |
| STS1305-4R7M | 4.7   | 20      | 0.0150         | 12                         | 11                              |
| STS1305-6R8M | 6.8   | 20      | 0.0185         | 11                         | 11                              |
| STS1305-100M | 10    | 20      | 0.0255         | 9                          | 12                              |

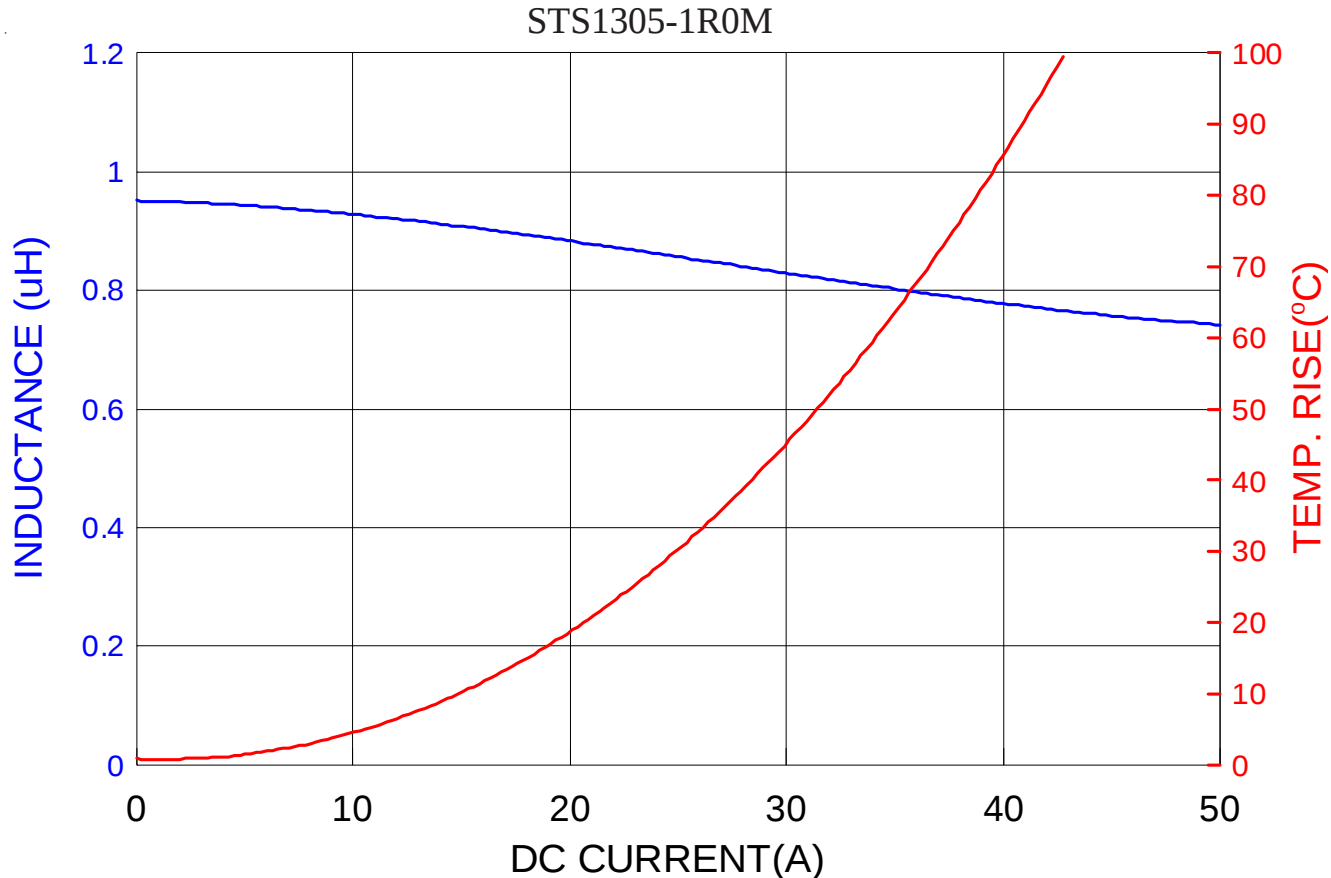
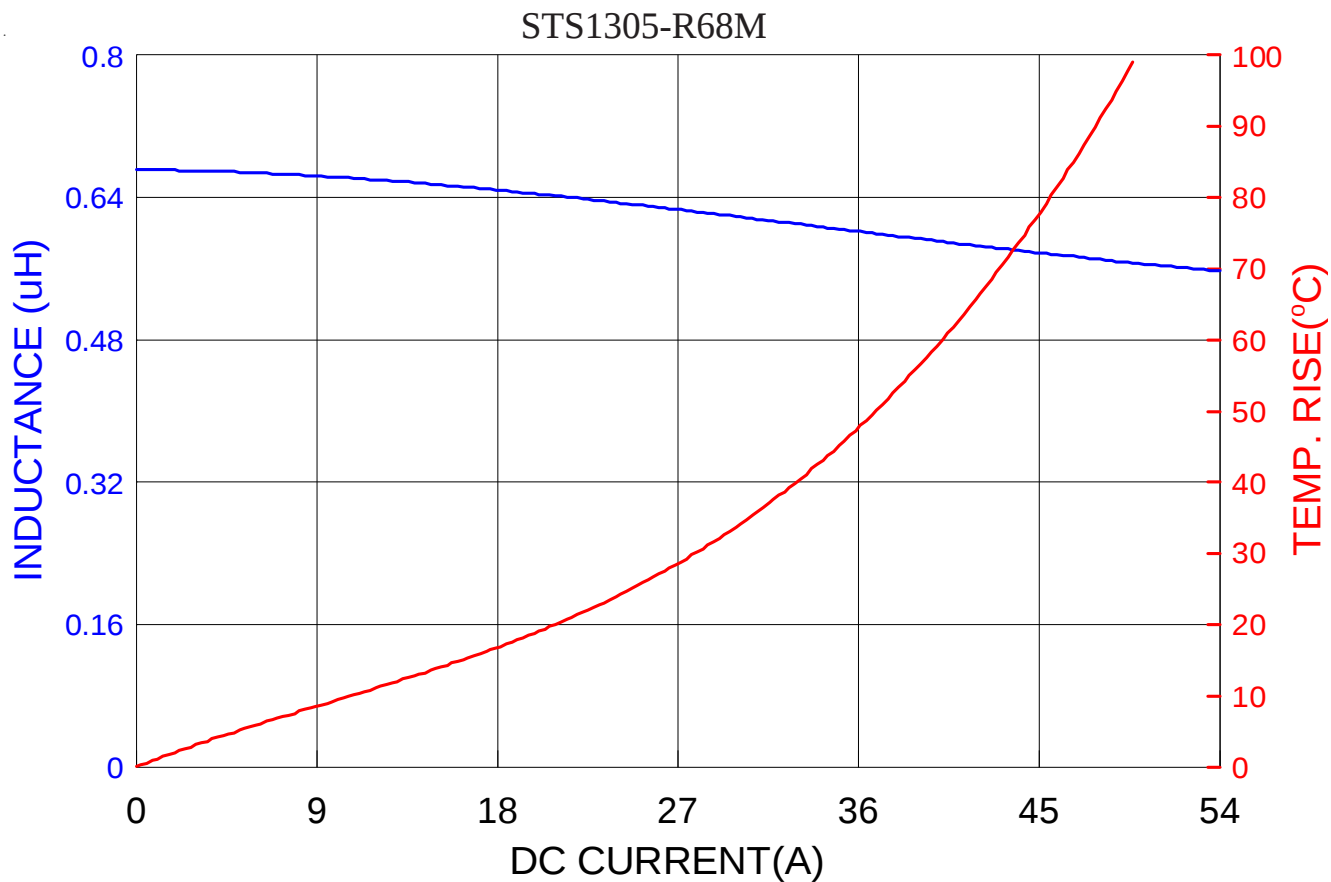
#### Suggested Reflow Profile





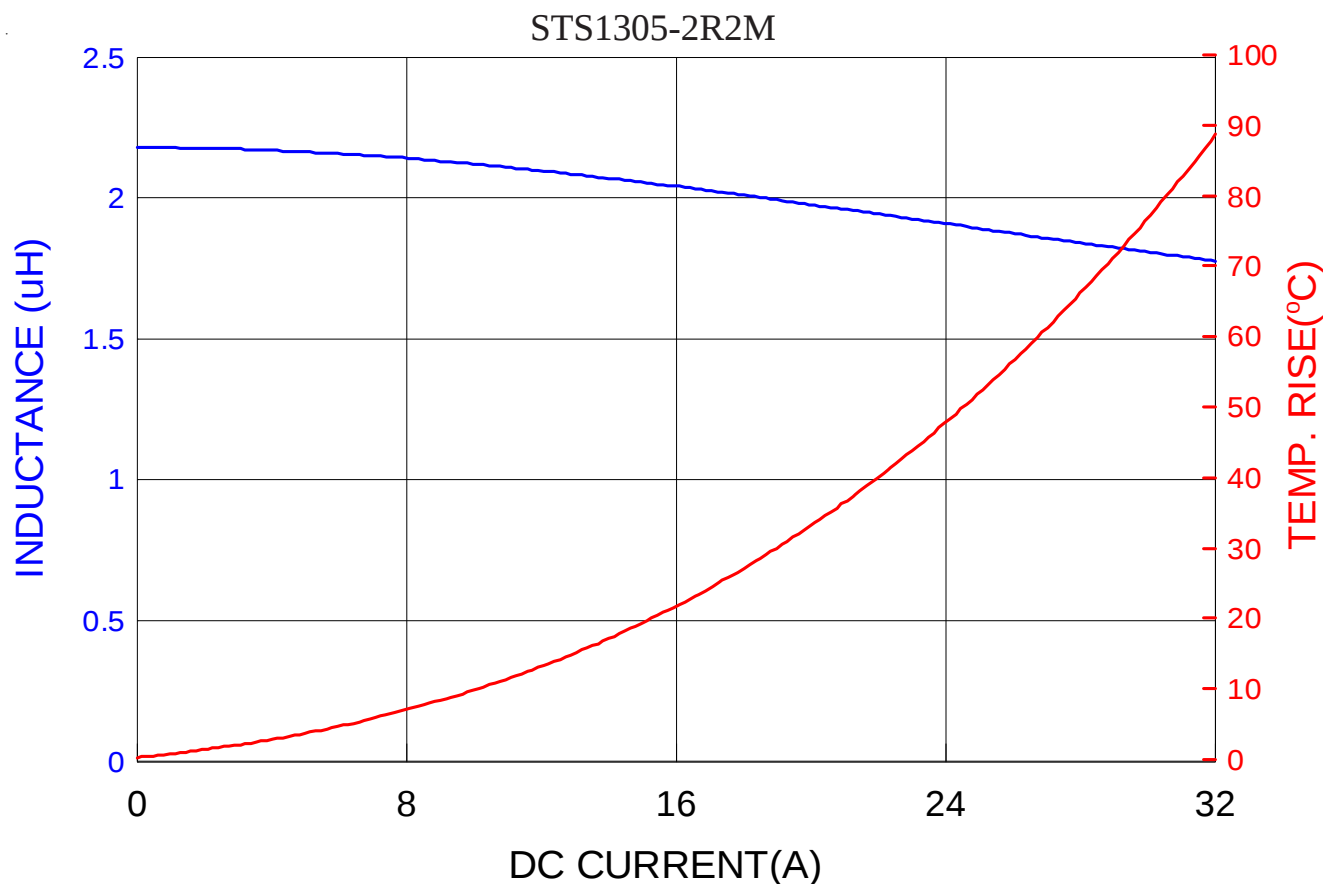
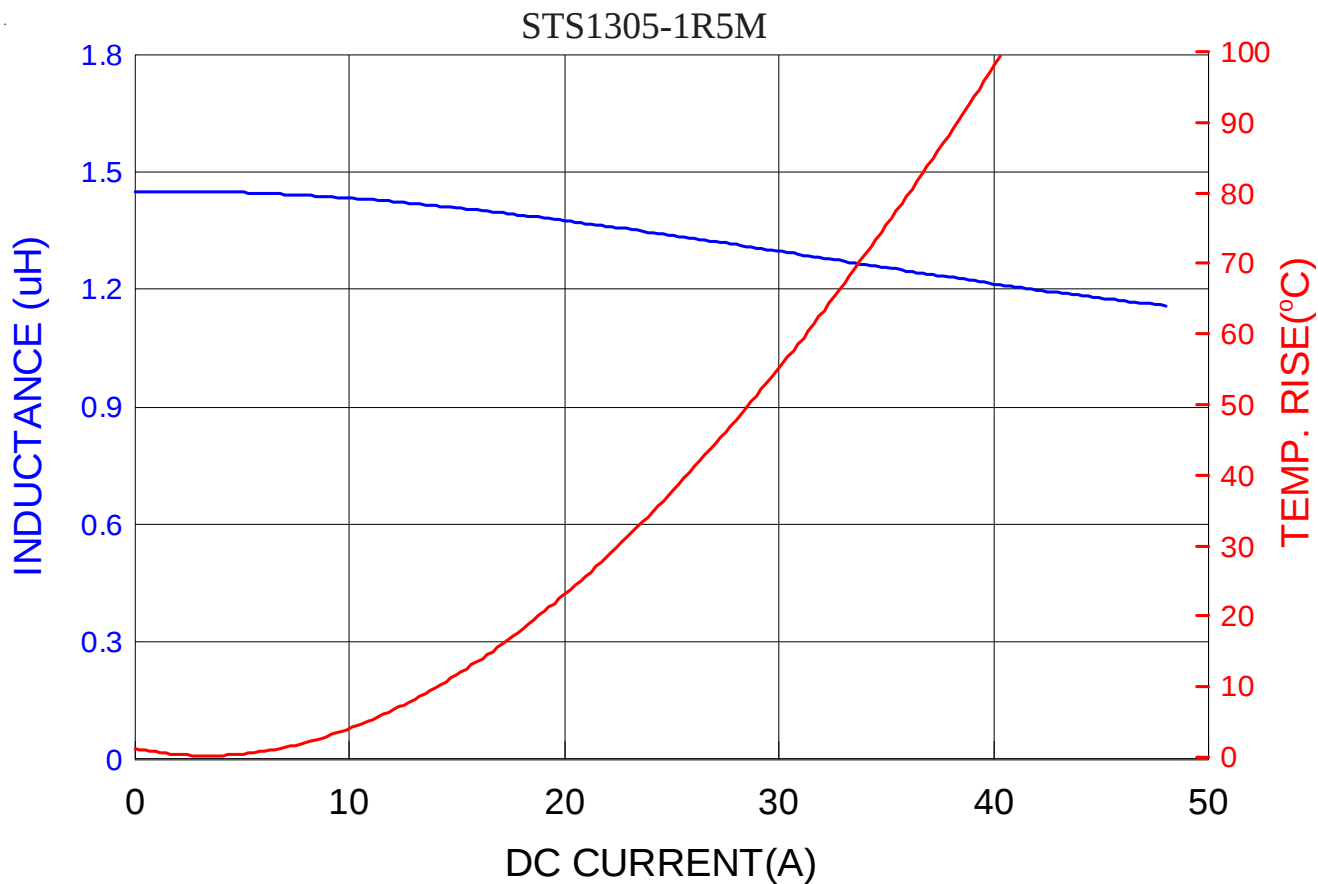
CONFIDENTIAL AND PROPRIETARY INFORMATION  
© 2007 Associated Components Technology, Inc. (Unpublished)  
All Rights Reserved

This document contains confidential and proprietary information of Associated Components Technology, Inc. and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Associated Components Technology, Inc is strictly forbidden. Date of Disclosure is Mar 20, 2007.



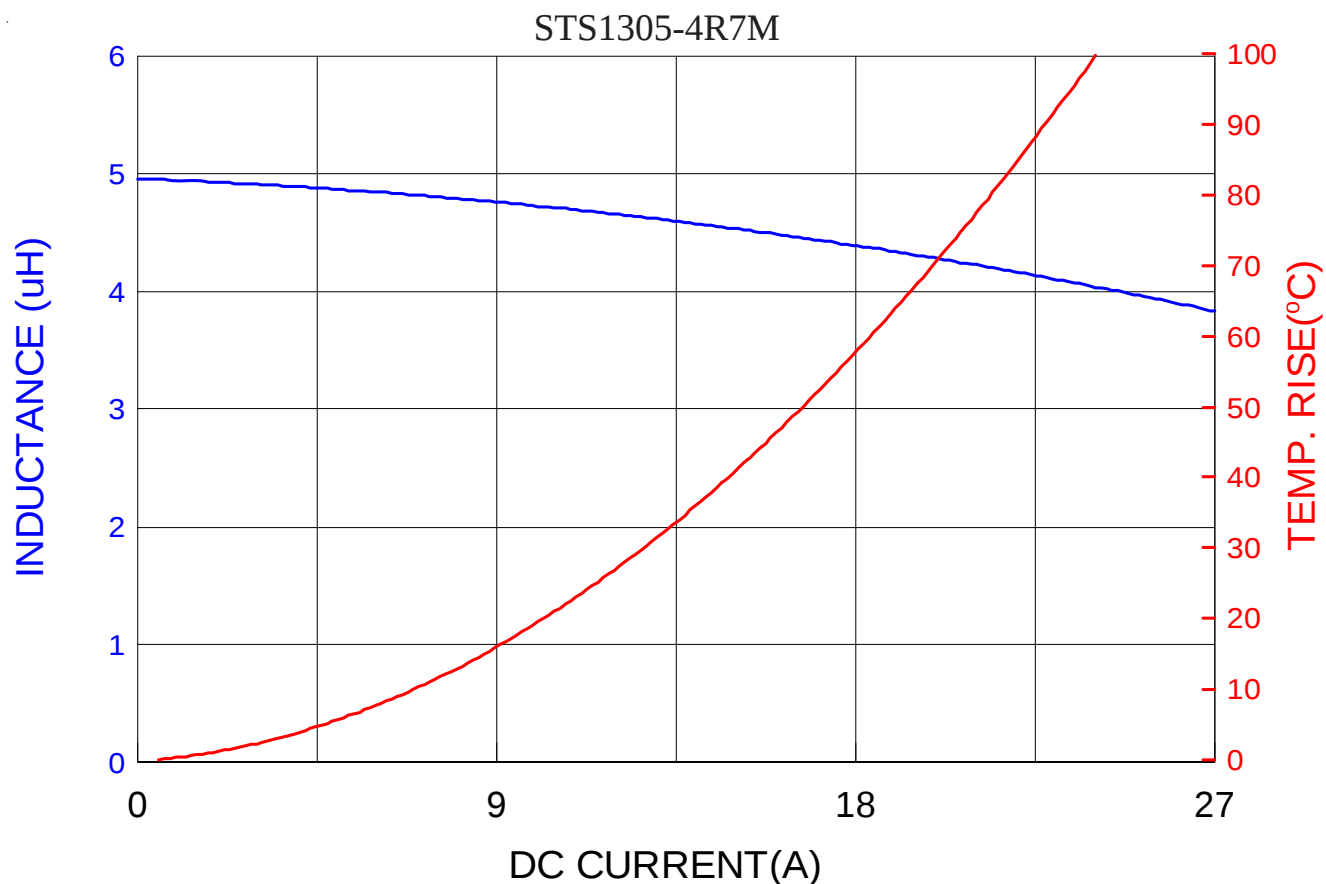
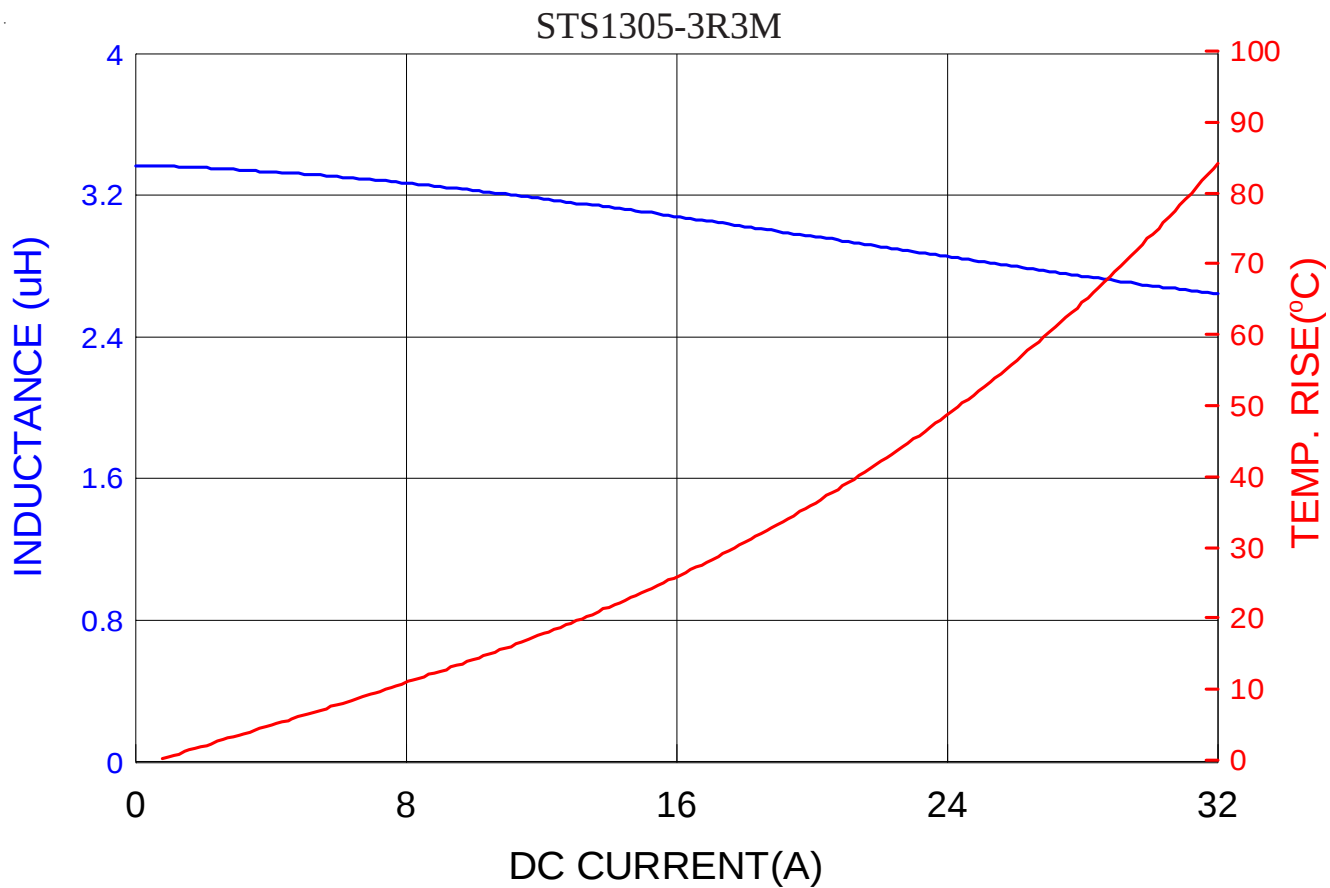
CONFIDENTIAL AND PROPRIETARY INFORMATION  
© 2007 Associated Components Technology, Inc. (Unpublished)  
All Rights Reserved

This document contains confidential and proprietary information of Associated Components Technology, Inc. and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Associated Components Technology, Inc is strictly forbidden. Date of Disclosure is Mar 20, 2007.



CONFIDENTIAL AND PROPRIETARY INFORMATION  
© 2007 Associated Components Technology, Inc. (Unpublished)  
All Rights Reserved

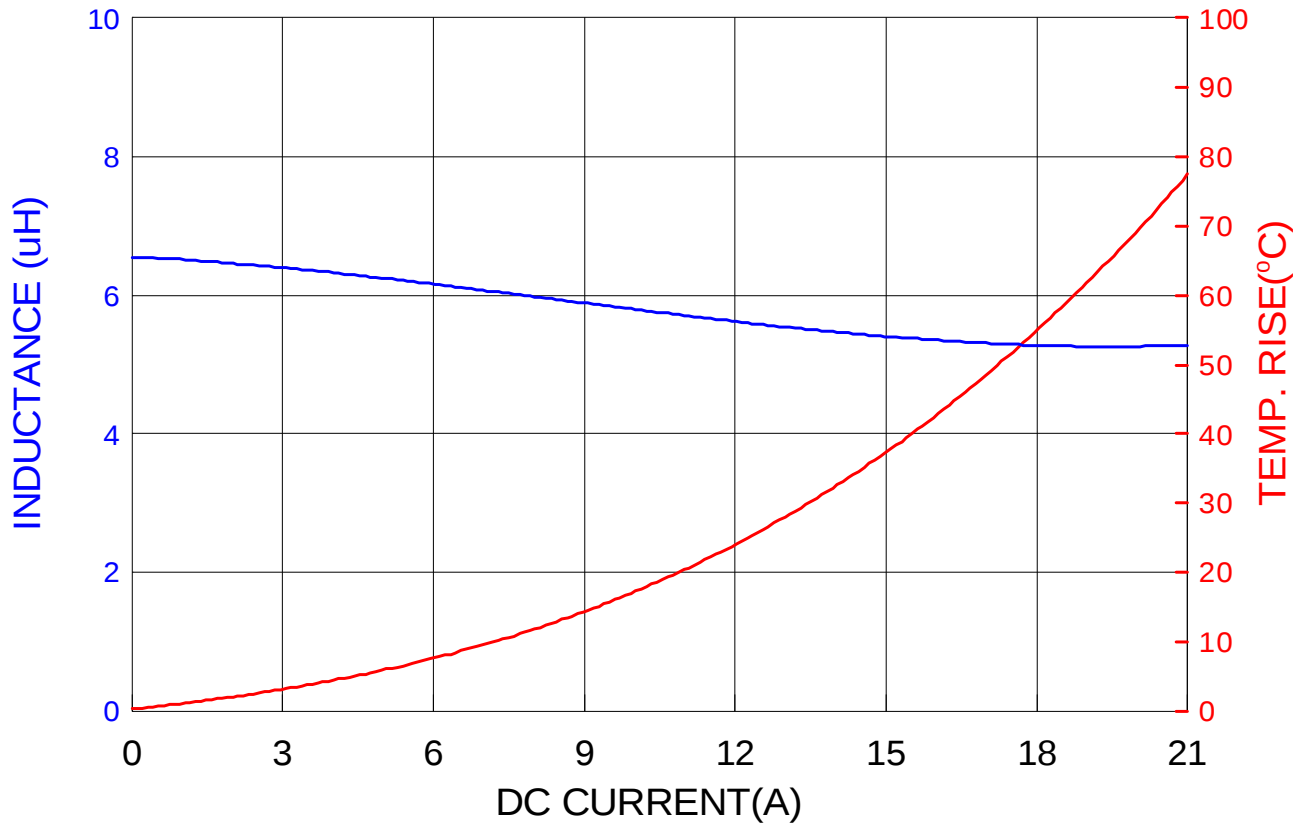
This document contains confidential and proprietary information of Associated Components Technology, Inc. and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Associated Components Technology, Inc. is strictly forbidden. Date of Disclosure is Mar 20, 2007.



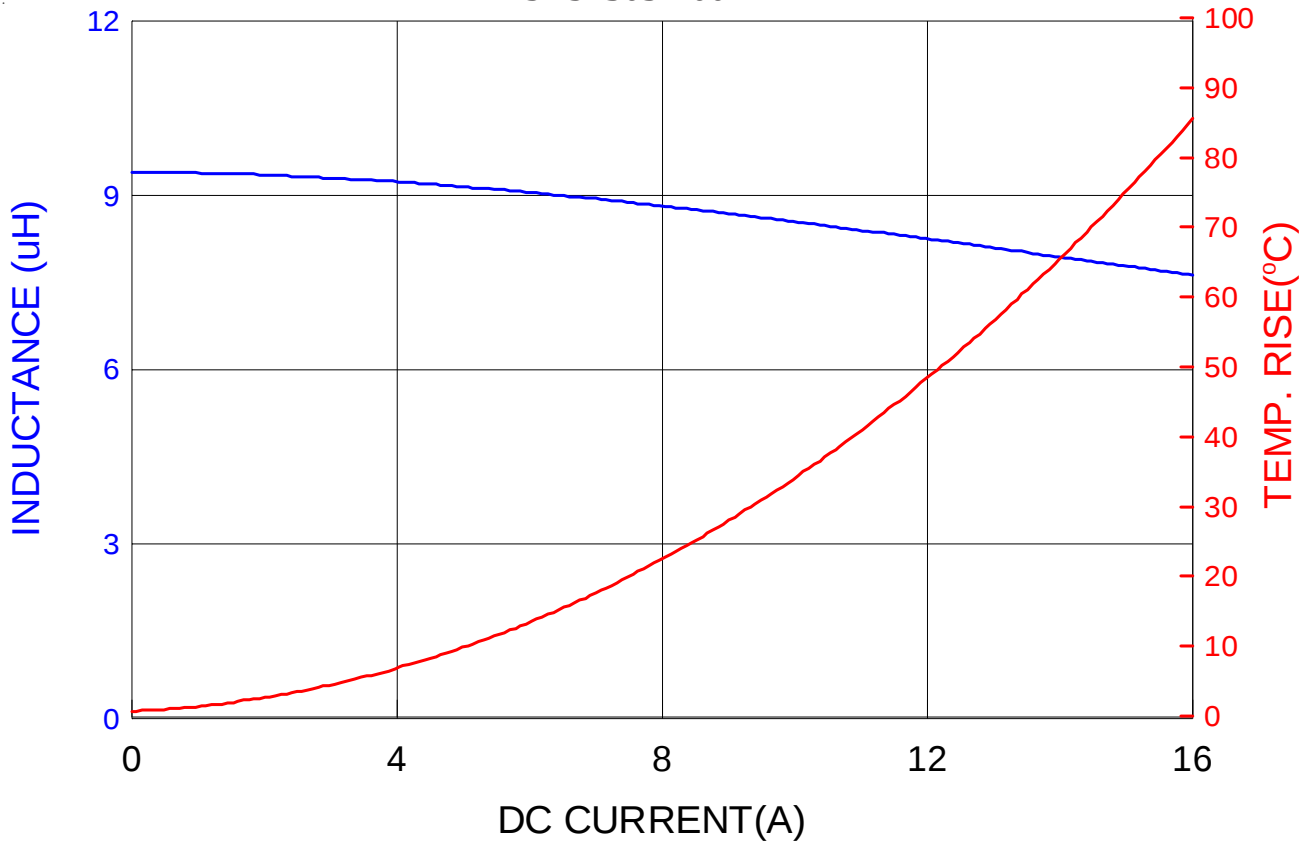
CONFIDENTIAL AND PROPRIETARY INFORMATION  
© 2007 Associated Components Technology, Inc. (Unpublished)  
All Rights Reserved

This document contains confidential and proprietary information of Associated Components Technology, Inc. and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Associated Components Technology, Inc is strictly forbidden. Date of Disclosure is Mar 20, 2007.

STS1305-6R8M



STS1305-100M



CONFIDENTIAL AND PROPRIETARY INFORMATION  
 © 2007 Associated Components Technology, Inc. (Unpublished)  
 All Rights Reserved

This document contains confidential and proprietary information of Associated Components Technology, Inc. and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Associated Components Technology, Inc is strictly forbidden. Date of Disclosure is Mar 20, 2007.