

## New Product

**SURFACE MOUNT  
SHIELDED POWER INDUCTOR  
SERIES STS1242**

### FEATURES

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

### ELECTRICAL SPECIFICATIONS

- Inductance range    0.36uH to 10.0uH
- Test condition        1Vrms @ 100kHz
- Test equipment        Quadtech 1750 LCR Meter

### PHYSICAL SPECIFICATIONS

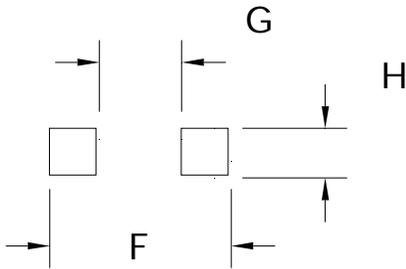
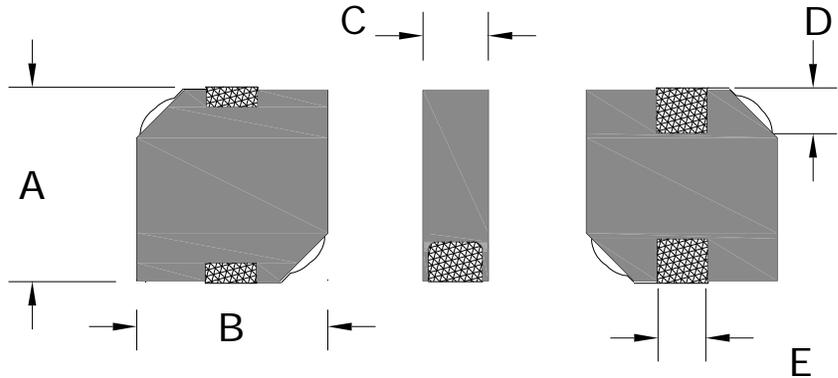
- Operating temp.        -55°C to +125°C
- Core                     Mixed material
- Packaging                T & R    900 pieces per reel
- Tape & reel spec.      Tape     24 mm embossed carrier
- Reel     330 mm reel

### SPECIFICATIONS

Part Number	L(uH)	Tol % ±	DCR (ohms) Max	Rated Current (A) (Note 1)	Saturation Current (A) (Note 2)
STS1242-R36M	0.36	20	0.0014	28	40
STS1242-R47M	0.47	20	0.0016	26	30
STS1242-R56M	0.56	20	0.0019	25	25
STS1242-R68M	0.68	20	0.0024	21	24
STS1242-1R0M	1.0	20	0.0035	20	24
STS1242-1R5M	1.5	20	0.0075	12	18
STS1242-2R2M	2.2	20	0.0086	11.5	16.5
STS1242-3R3M	3.3	20	0.0100	10.0	14
STS1242-4R7M	4.7	20	0.0135	8.0	11
STS1242-6R8M	6.8	20	0.0240	6.5	10
STS1242-100M	10	20	0.0350	5.0	7

### Dimensions in millimeters

- Length A                11.8 max
- Width B                10.5 max
- Height C                4.2 max
- Terminal length D     2.2 ± 0.5
- Terminal width E     2.9 ± 0.5
- Footprint length F    12.4 ref
- Pad spacing G         5.4 ref
- Pad width H            4.5 ref



**Notes:**

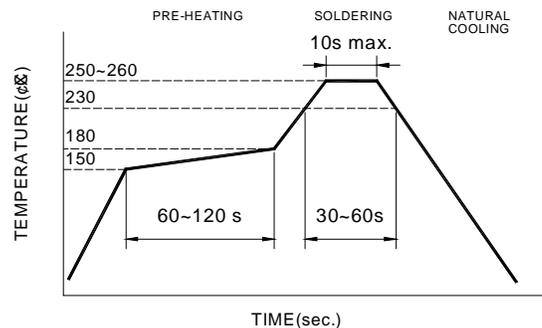
1. Based on  $\Delta T$  approximately 40°C
2. L drops 20% typical

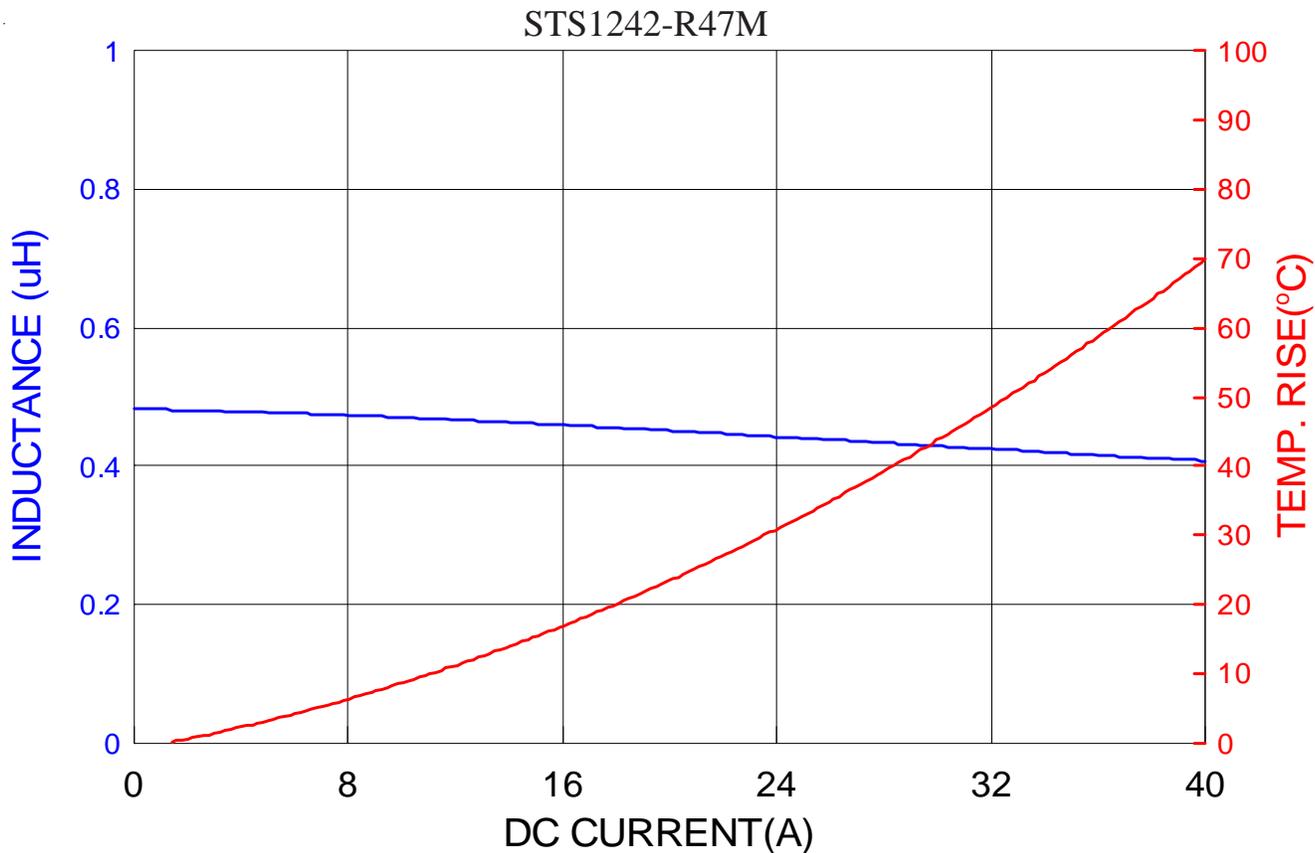
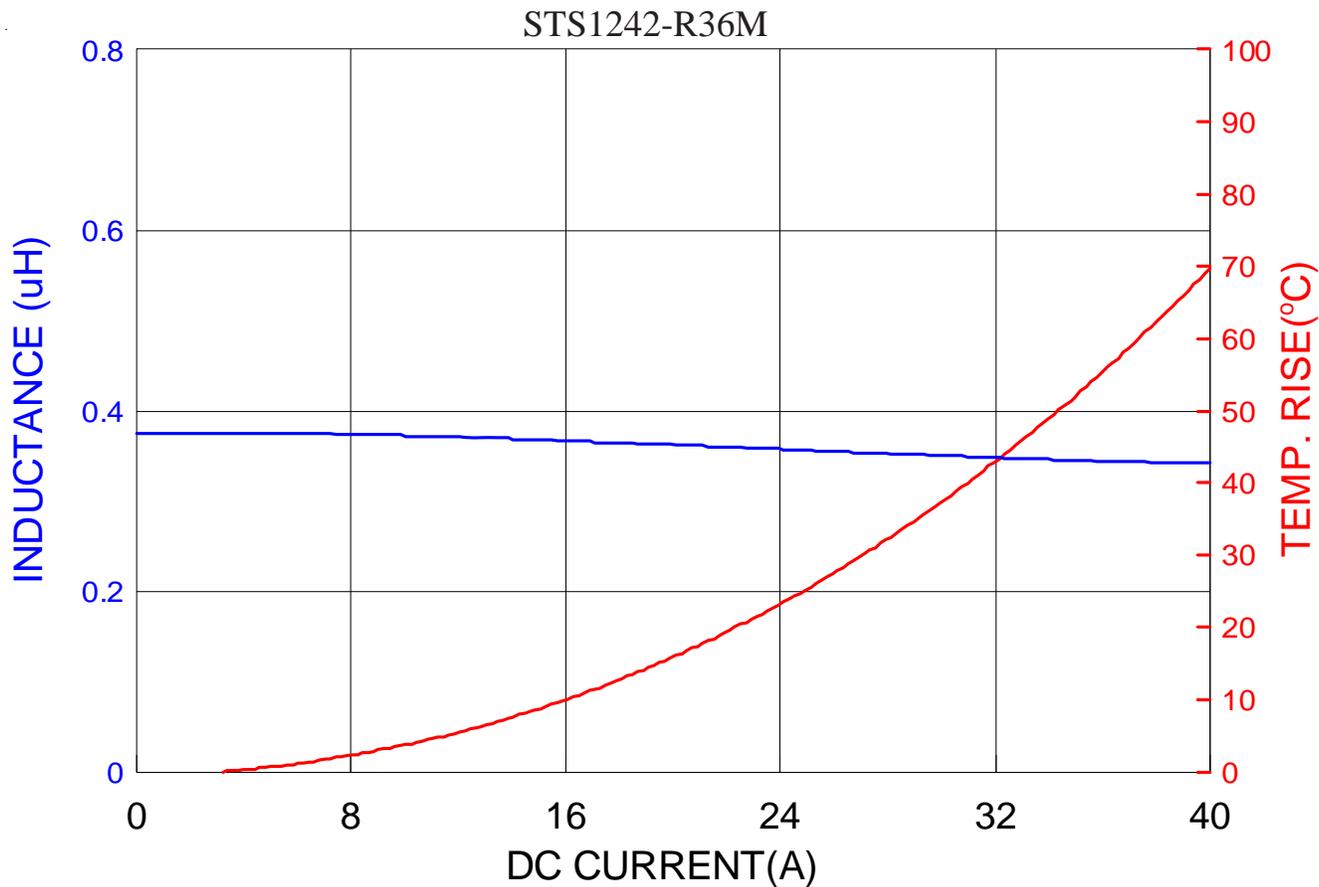
All test data based on 25°C ambient

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.

### Suggested Reflow Profile

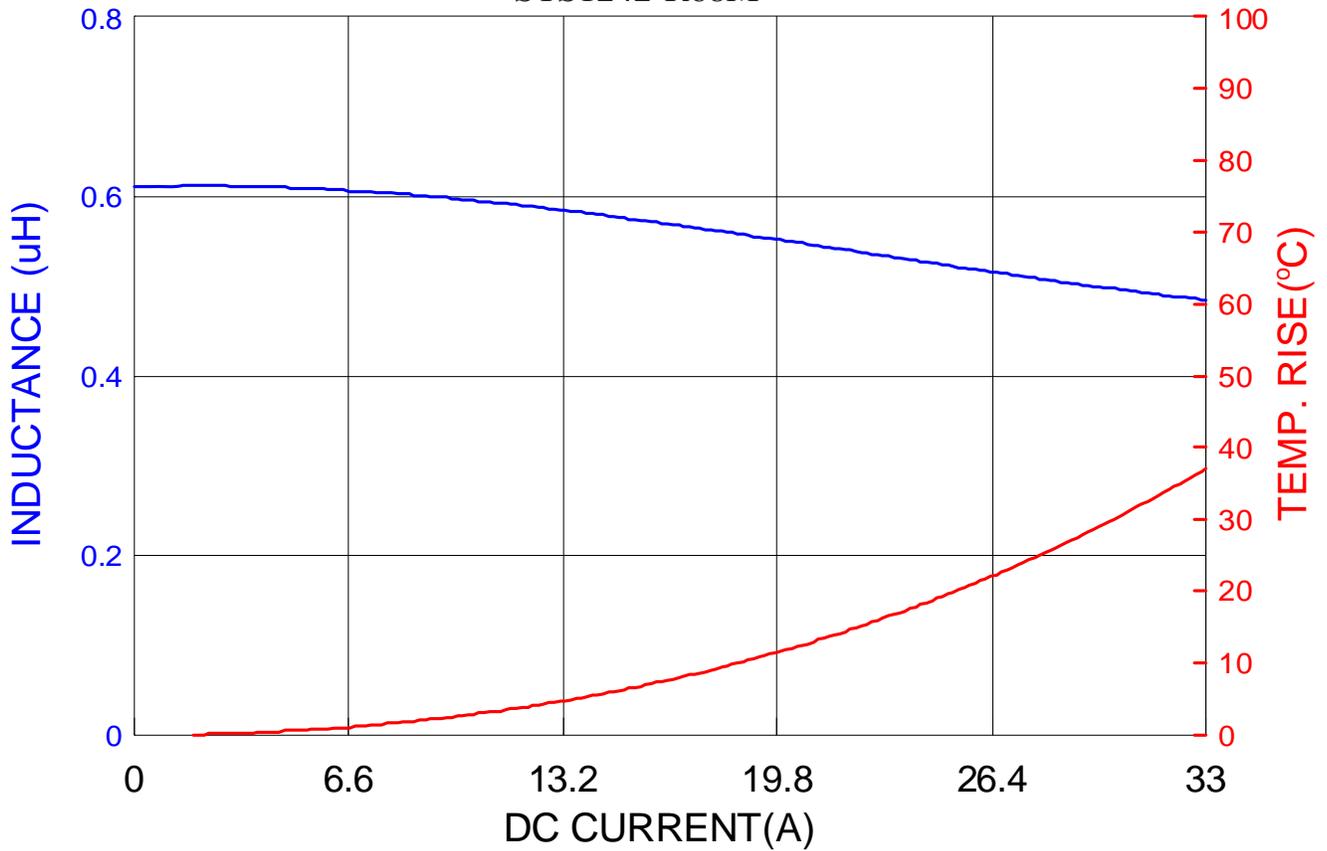




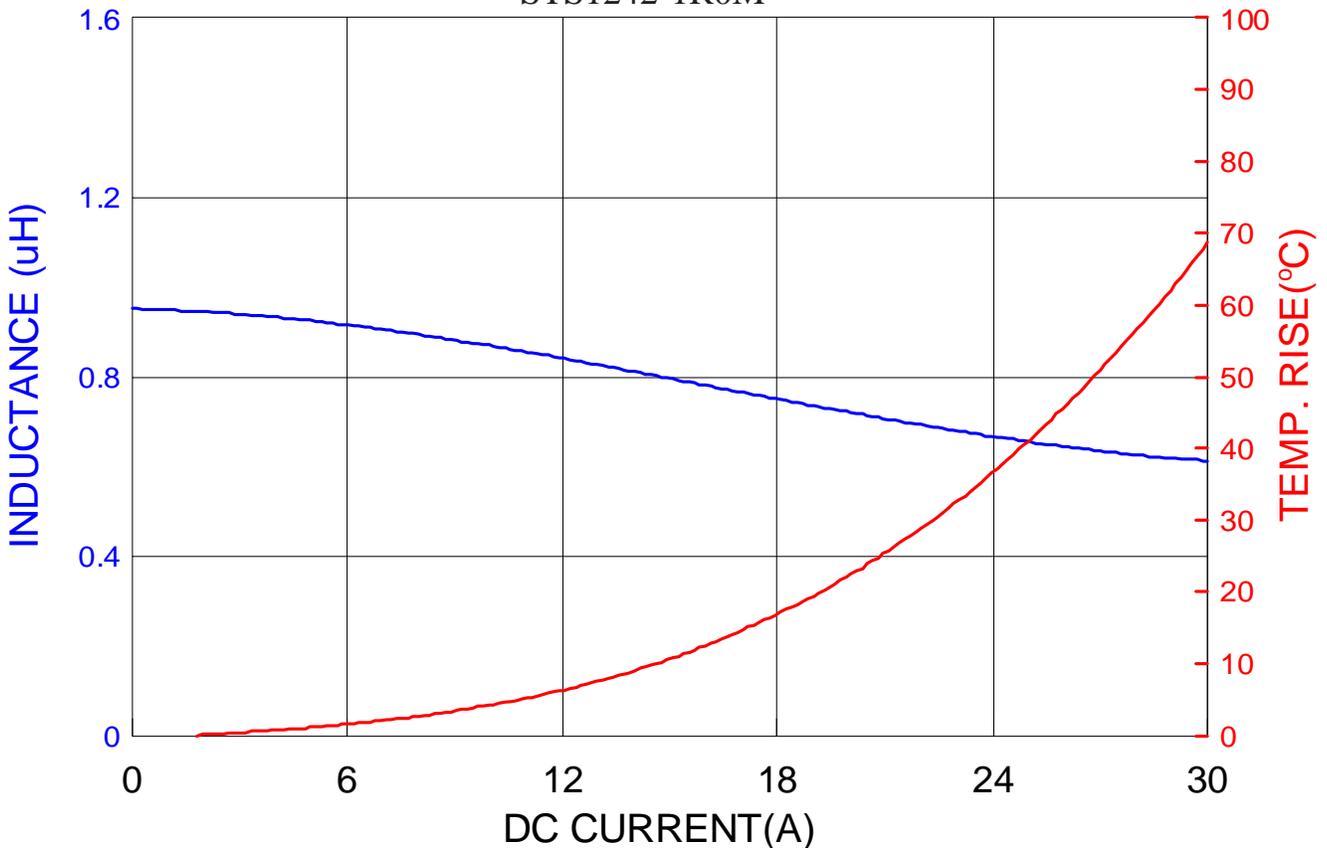
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STS1242-R68M



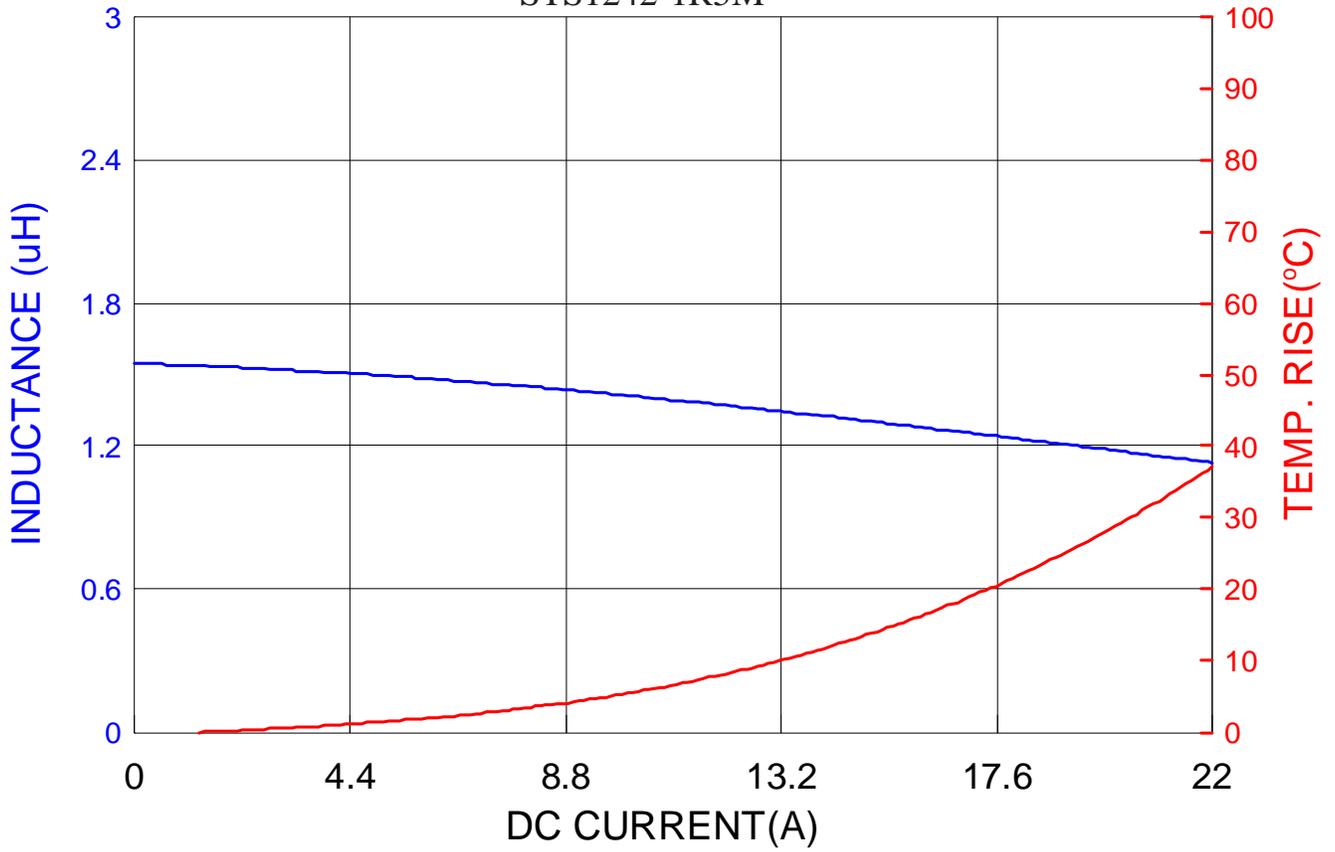
STS1242-1R0M



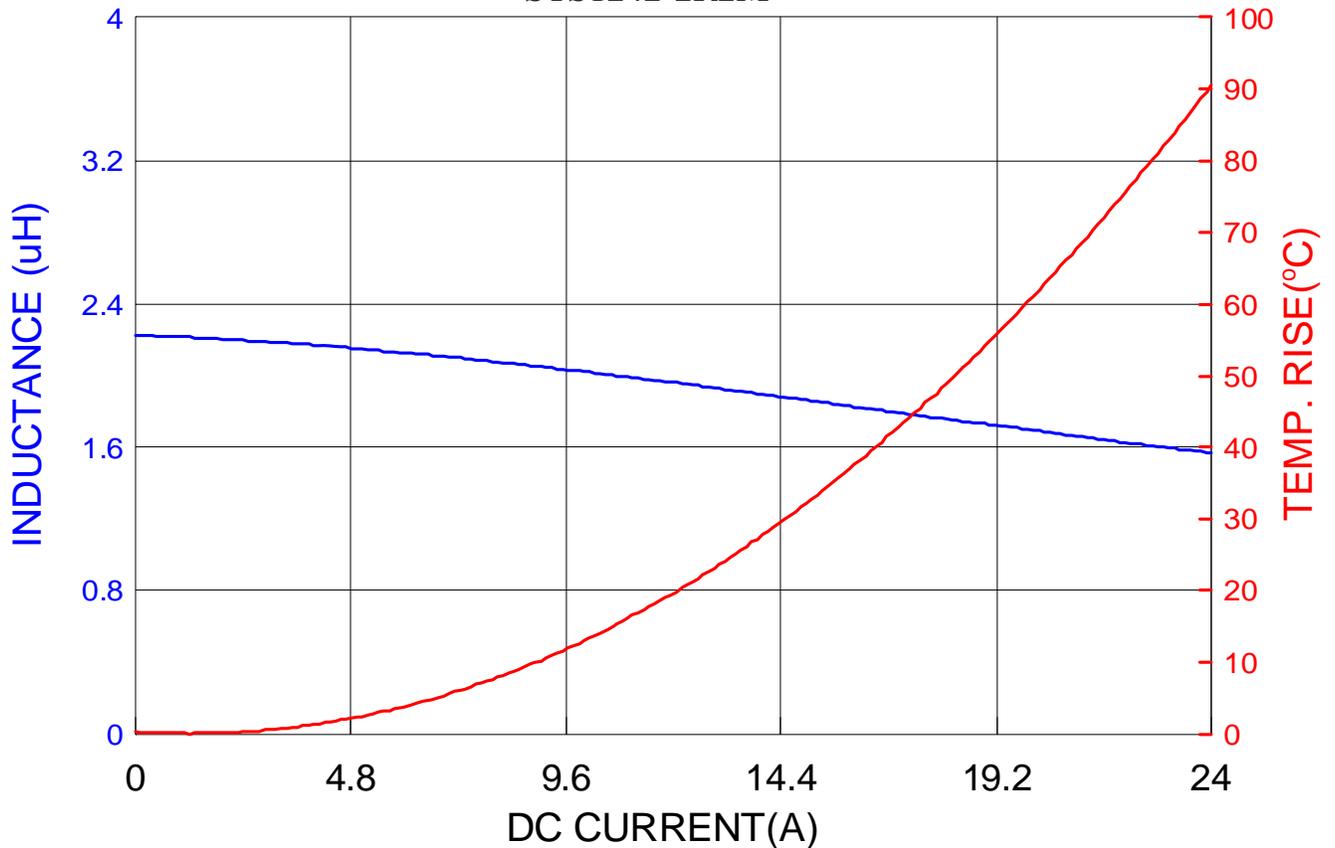
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STS1242-1R5M



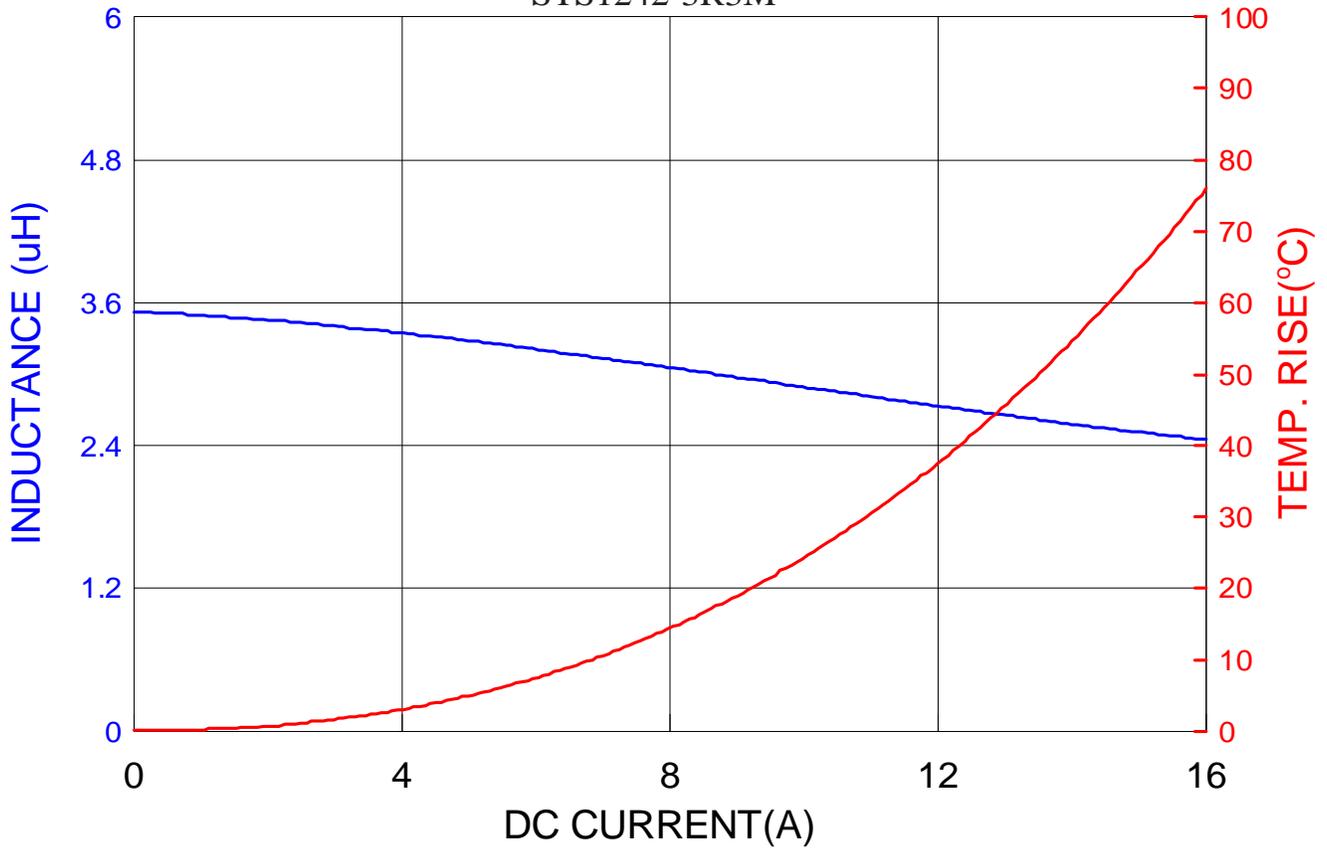
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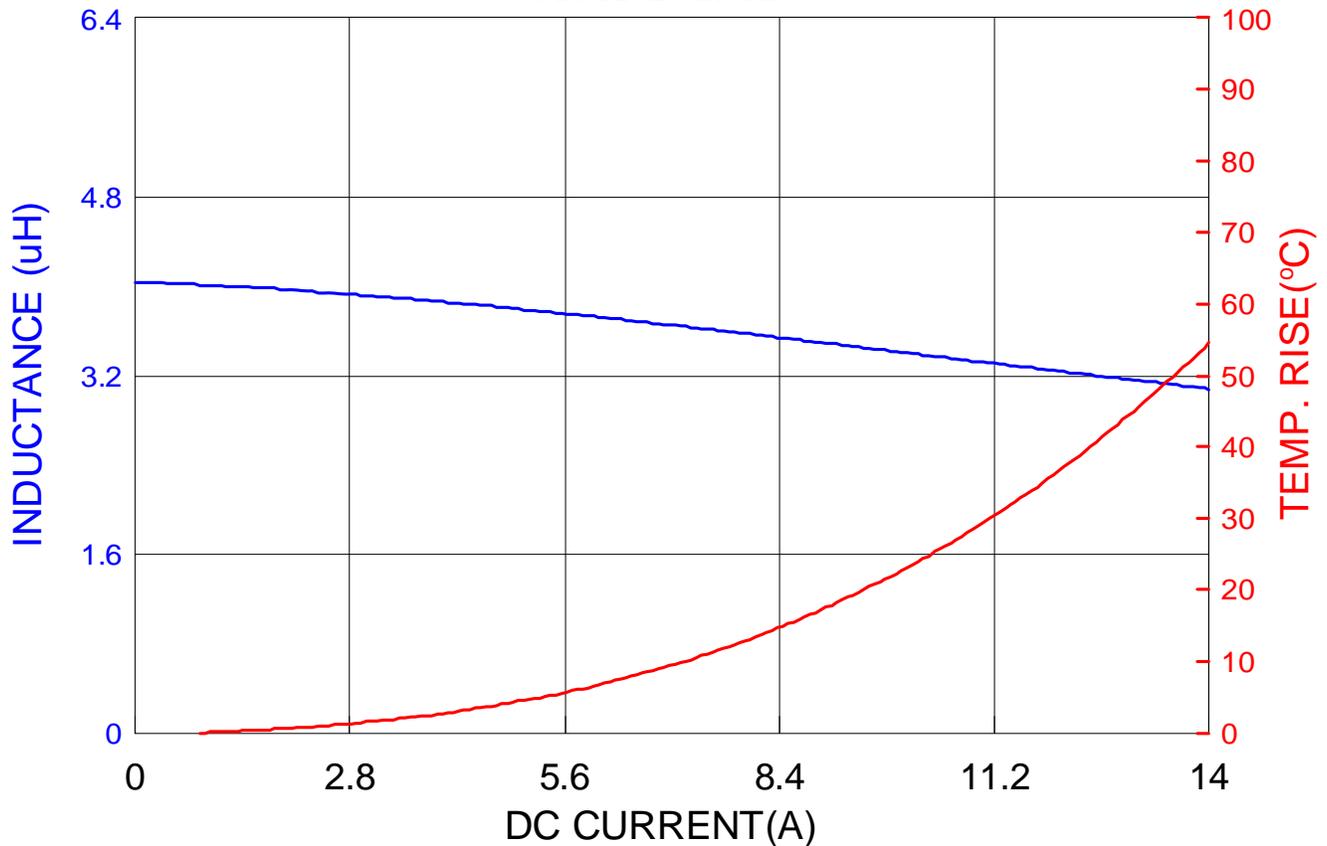
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STS1242-3R3M



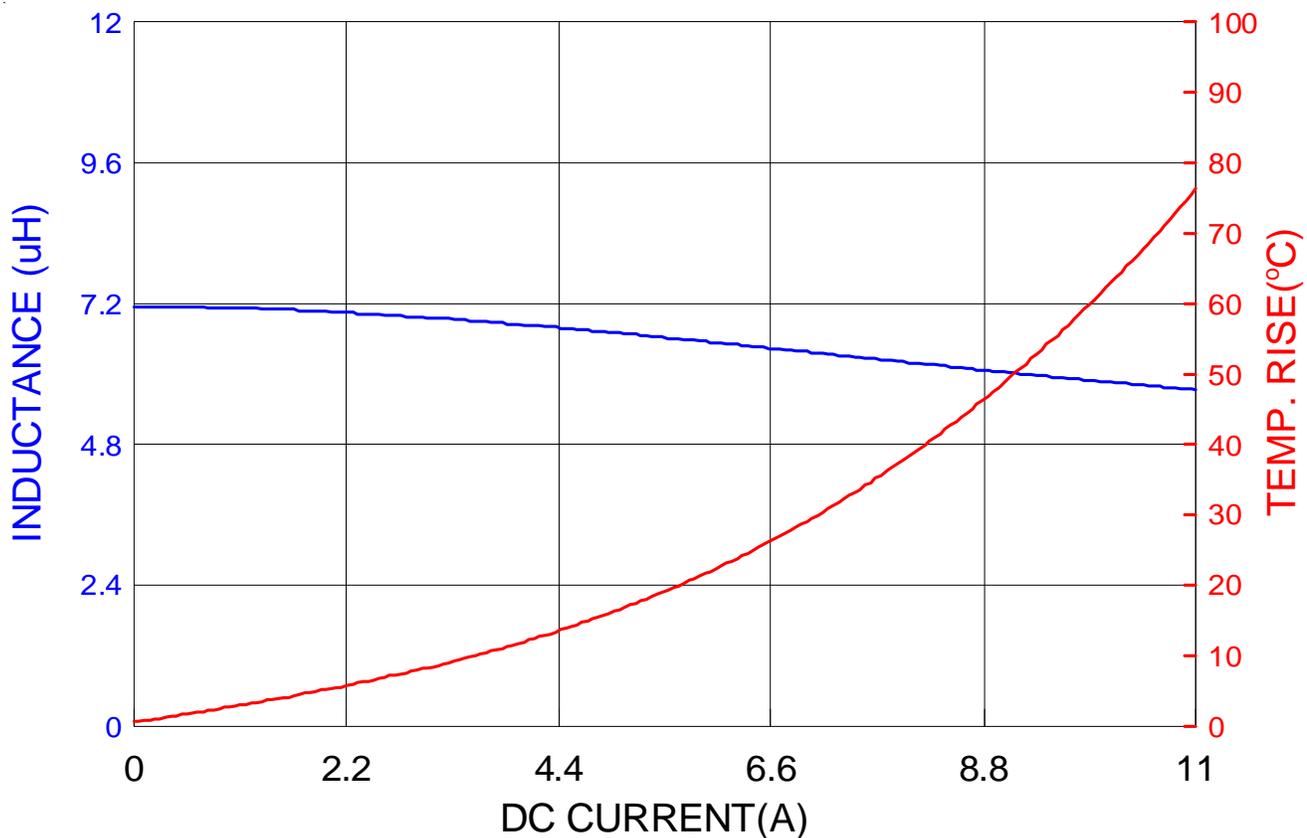
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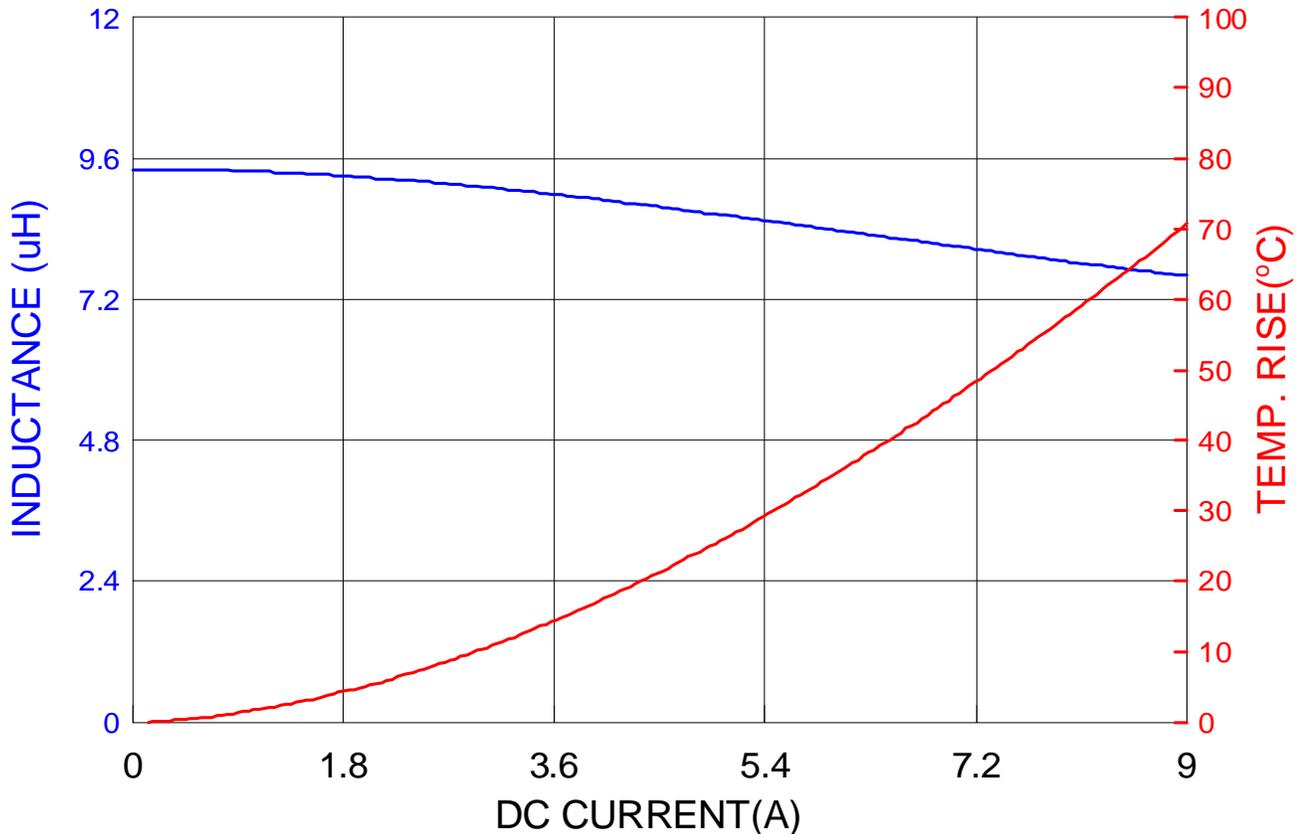
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STS1242-6R8M



STS1242-100M



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