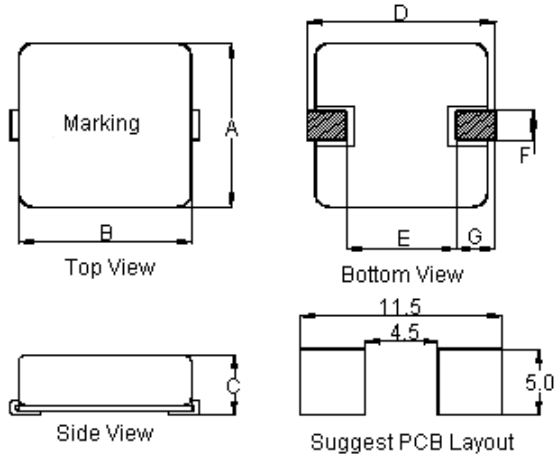
| PART NO. | REVISIONS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MCSC4015-R75MU | ECN # | REV | DESCRIPTION | DRAWN | DATE | CHECKD | DATE | APPRVD | DATE |
| | - | A | RELEASED | Veena | 07/2/11 | Jagan | 07/2/11 | Farnell | 21/2/11 |

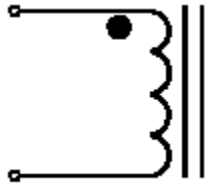
## Configurations and Dimensions




Dimensions : Millimetres

| | | |
|---|---|---|
| A | 10 ±0.4 mm | - |
| B | 10 ±0.4 mm | - |
| C | 4 mm | Maximum |
| D | 11 mm | Maximum |
| E | 5.6 mm | (Reference) |
| F | 2 mm | (Reference) |
| G | 2.35 mm | (Reference) |

## Schematic Diagram



RoHS Compliant

**Marking :** **R75 1. The long pin is the beginning of winding.**
**YYWW**

## Electrical Characteristics

| Test Condition | | |
|---|---|---|
| 300KHz/0.25V | L | 0.75µH ±20% |
| $T_a$ 25°C | DCR | 3mΩ ±7% |
| 300KHz 0.25V $I_{rms}$ = 20A (Maximum) | L at $I_{rms}$ | 0.66µH (Reference) |
| 300KHz 0.25V $I_{max}$ = 28A (Maximum) | L at $I_{max}$ | 0.62µH (Reference) |

Operating temperature range: -40°C to +150°C

**Note:**
$I_{rms}$ : DC current rating at 40°C temperature rise (typical)
$I_{max}$ : DC current rating at 100°C temperature rise (typical)

## Test Data for Mechanical

| Test Item | A mm | B mm | C mm | D mm | E mm | F mm | G |
|---|---|---|---|---|---|---|---|
| **Specification** | **10 ±0.4** | **10 ±0.4** | **4 (Maximum)** | **11 (Maximum)** | **5.6 (Reference)** | **2 (Reference)** | **2.35 (Reference)** |
| 1 | 10.13 | 10.15 | 3.79 | 10.21 | 5.96 | 1.96 | 2.35 |
| 2 | 10.11 | 10.13 | 3.74 | 10.27 | 5.75 | 1.95 | 2.27 |
| 3 | 10.13 | 10.16 | 3.76 | | 5.64 | 1.9 | 2.44 |
| 4 | 10.14 | 10.15 | 3.78 | 10.32 | 5.89 | 1.94 | 2.25 |
| 5 | 10.18 | | 3.77 | 10.36 | 5.77 | 1.97 | 2.27 |
| **Average** | **10.14** | **10.15** | **3.77** | **10.29** | **5.80** | **1.94** | **2.32** |



TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

| DRAWN BY: | DATE: |
|---|---|
| Veena | 07/02/11 |
| CHECKED BY: | DATE: |
| Jagan | 07/02/11 |
| APPROVED BY: | DATE: |
| Farnell | 21/02/11 |

DRAWING TITLE: Inductor

| SIZE | DWG NO. | ELECTRONIC FILE | REV |
|---|---|---|---|
| A | M10002599 | SC4015-R75MU | A |

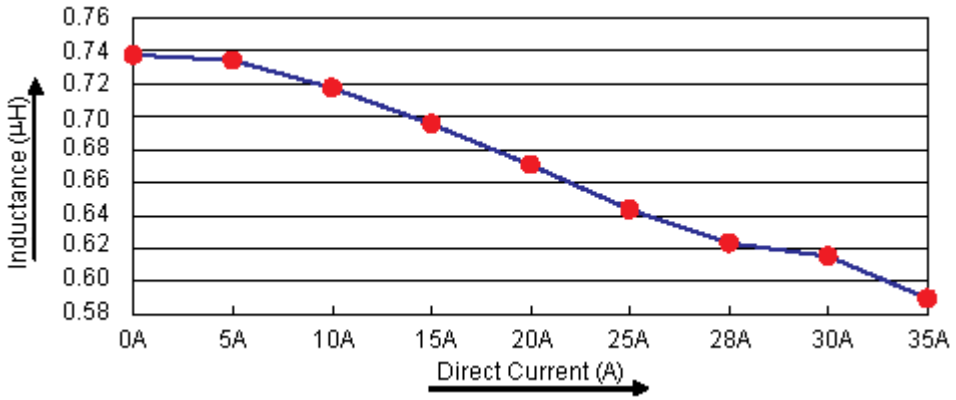
SCALE: NTS | U.O.M.: mm | SHEET: 1 OF 3

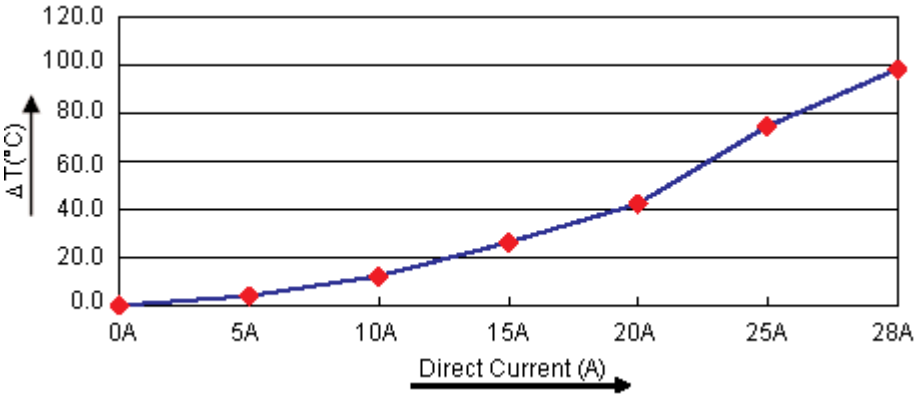
| PART NO. | REVISIONS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| MCSC4015-R75MU | ECN # | REV | DESCRIPTION | DRAWN | DATE | CHECKD | DATE | APPRVD | DATE |
| | - | A | RELEASED | Veena | 07/2/11 | Jagan | 07/2/11 | Farnell | 21/2/11 |

## Test Data for Electrical

| Test Item | L µH | DCR mW | L at $I_{rms}$ µH | L at $I_{max}$ µH |
|---|---|---|---|---|
| **Condition** | **300KHz 0.25V** | **at 25°C** | **300KHz/0.25V $I_{rms}$ = 20A (Maximum)** | **300KHz/0.25V $I_{max}$ = 28A (Maximum)** |
| **Specification** | **0.75 ±20%** | **3 ±7%** | **0.66 (Reference)** | **0.62 (Reference)** |
| 1 | 0.736 | 3.02 | 0.67 | 0.61 |
| 2 | 0.732 | 3.03 | 0.665 | 0.62 |
| 3 | 0.73 | 3.04 | 0.667 | 0.624 |
| 4 | 0.737 | 3.03 | 0.674 | 0.63 |
| 5 | 0.749 | 3.02 | 0.696 | 0.631 |
| **Average** | **0.737** | **3.03** | **0.674** | **0.623** |

## Electric Characteristics






TOLERANCES:

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| DRAWN BY: | DATE: |
|---|---|
| Veena | 07/02/11 |
| CHECKED BY: | DATE: |
| Jagan | 07/02/11 |
| APPROVED BY: | DATE: |
| Farnell | 21/02/11 |

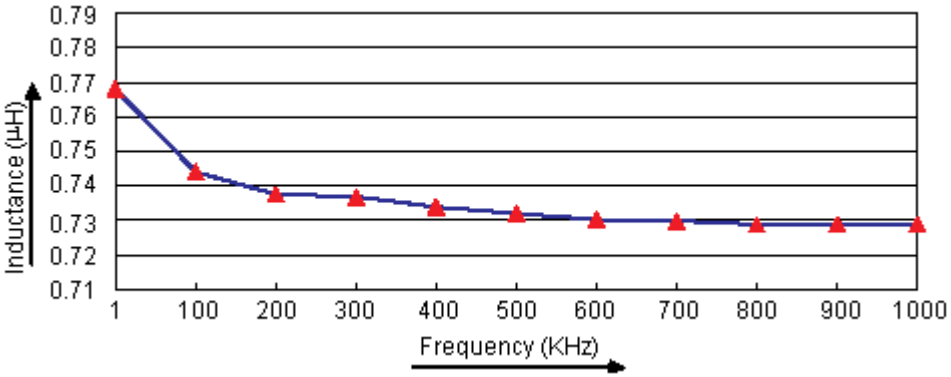
DRAWING TITLE: Inductor

| SIZE | DWG NO. | ELECTRONIC FILE | REV |
|---|---|---|---|
| A | M10002599 | **SC4015-R75MU** | A |

SCALE: NTS | U.O.M.: mm | SHEET: 2 OF 3

| PART NO. | REVISIONS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| MCSC4015-R75MU | ECN # | REV | DESCRIPTION | DRAWN | DATE | CHECKD | DATE | APPRVD | DATE |
| | - | A | RELEASED | Veena | 07/2/11 | Jagan | 07/2/11 | Farnell | 21/2/11 |
| | | | | | | | | | |

## Electric Characteristics




## Material List

| No. | Item | Material Description |
|---|---|---|
| 1 | Core | SMX250/105-SF56Q-GT; SPX-F120/090-SF56Q-GT |
| 2 | Wire | FW025200039003T5-A18F |
| 3 | Winding | 3.5TS |
| 4 | Taping | SC4015 800Pieces/Reel |
| 5 | Glue | R67<br>YYWW |

## Part Number Table

| Description | Part Number |
|---|---|
| Inductor, 0.75µH, 20%, 19A | MCSC4015-R75MU |

**http://www.farnell.com**

**http://www.newark.com**

**http://www.cpc.co.uk**



TOLERANCES:

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| DRAWN BY: | DATE: |
|---|---|
| Veena | 07/02/11 |
| CHECKED BY: | DATE: |
| Jagan | 07/02/11 |
| APPROVED BY: | DATE: |
| Farnell | 21/02/11 |

DRAWING TITLE: Inductor

| SIZE | DWG NO. | ELECTRONIC FILE | REV |
|---|---|---|---|
| A | M10002599 | **SC4015-R75MU** | A |

SCALE: NTS | U.O.M.: mm | SHEET: 3 OF 3