

## SL Series • Toroidal Power Inductors

### Features

- Operating frequency to 1MHz
- High energy storage with minimum saturation
- High stability from no load to full load
- Available in both SMD and TH versions
- Manufactured in ISO 9001:2015 and ISO 14001:2015 certified Talema facility
- Meets lead free reflow level J-STD-020C
- Fully RoHS & REACH Compliant



### Electrical Specifications @25°C

Test frequency: Inductance measured @10KHz / 10mV

Test voltage between windings: 500Vrms

Operating temperature range: -40°C to +130°C

Climatic Category: IEC68-1 40/125/56

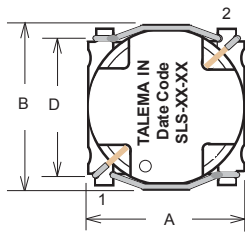


| Part Number       | Rated Current (I <sub>DC</sub> ) | L <sub>N</sub> (μH)<br>@ I rated<br>±20% | L <sub>O</sub> (μH)<br>No Load<br>±20% | DCR<br>(mOhms)<br>Nominal | Energy<br>Storage<br>(μJ) | Package |       |
|-------------------|----------------------------------|------------------------------------------|----------------------------------------|---------------------------|---------------------------|---------|-------|
|                   |                                  |                                          |                                        |                           |                           | "SMD"   | "THT" |
| SL_-3.4-1.01      | 3.40                             | 1.01                                     | 1.10                                   | 9.6                       | 6                         | S1      | T1    |
| SL_-1.4-6.2       | 1.40                             | 6.20                                     | 7.00                                   | 62.0                      | 6                         | S1      | T1    |
| SL_-1.0-17.6      | 1.00                             | 17.60                                    | 23.96                                  | 117.7                     | 9                         | S1      | T1    |
| SL_-4.8-3.8       | 4.80                             | 3.80                                     | 5.20                                   | 17.0                      | 44                        | S2      | T2    |
| SL_-2.8-9.4       | 2.80                             | 9.40                                     | 12.20                                  | 41.1                      | 37                        | S2      | T2    |
| SL_-1.4-29.7      | 1.40                             | 29.70                                    | 35.30                                  | 144.3                     | 29                        | S2      | T2    |
| SL_-0.94-114      | 0.94                             | 114.00                                   | 167.00                                 | 411.2                     | 50                        | S2      | T2    |
| SL_-8.0-2.5       | 8.00                             | 2.50                                     | 3.80                                   | 7.8                       | 80                        | S3      | T3    |
| SL_-5.4-5.1       | 5.40                             | 5.10                                     | 7.50                                   | 17.5                      | 74                        | S3      | T3    |
| SL_-2.7-16.2      | 2.70                             | 16.20                                    | 21.90                                  | 68.5                      | 59                        | S3      | T3    |
| SL_-1.3-58.1      | 1.30                             | 58.10                                    | 73.00                                  | 288.8                     | 49                        | S3      | T3    |
| SL_-0.9-192       | 0.90                             | 192.00                                   | 292.00                                 | 534.7                     | 78                        | S3      | T3    |
| SL_-0.72-383      | 0.72                             | 383.00                                   | 674.00                                 | 765.0                     | 99                        | S3      | T3    |
| SL_-7.8-4.9       | 7.80                             | 4.90                                     | 7.90                                   | 10.9                      | 149                       | S4      | T4    |
| SL_-5.5-9.0       | 5.50                             | 9.00                                     | 14.00                                  | 26.1                      | 136                       | S4      | T4    |
| SL_-2.7-29.1      | 2.70                             | 29.10                                    | 40.50                                  | 93.8                      | 106                       | S4      | T4    |
| SL_-0.74-645      | 0.74                             | 645.00                                   | 1134.00                                | 1267.2                    | 177                       | S4      | T4    |
| SL_-14.3-0.81     | 14.30                            | 0.81                                     | 1.25                                   | 2.3                       | 83                        | SH3     | --    |
| SL_-11.5-1.32     | 11.50                            | 1.32                                     | 2.10                                   | 3.2                       | 87                        | SH3     | --    |
| SL_-13.9-1.68     | 13.90                            | 1.68                                     | 2.80                                   | 3.3                       | 162                       | SH4     | --    |
| SL_-11.4-2.5      | 11.40                            | 2.50                                     | 4.20                                   | 4.9                       | 162                       | SH4     | --    |
| SL_-7.2-9.3       | 7.20                             | 9.30                                     | 16.00                                  | 15.1                      | 241                       | S5      | T5    |
| SL_-5.1-16.1      | 5.10                             | 16.10                                    | 25.90                                  | 27.3                      | 209                       | S5      | T5    |
| SL_-2.6-50.0      | 2.60                             | 50.00                                    | 72.90                                  | 117.2                     | 169                       | S5      | T5    |
| SL_-0.71-1070     | 0.71                             | 1070.00                                  | 1950.00                                | 1616.1                    | 270                       | S5      | T5    |
| SL_-12.4-3.5      | 12.40                            | 3.50                                     | 6.50                                   | 5.9                       | 269                       | SH5     | --    |
| SL_-10.4-4.7      | 10.40                            | 4.70                                     | 8.40                                   | 7.1                       | 254                       | SH5     | --    |
| SL_-15.4-5.2      | 15.40                            | 5.20                                     | 10.30                                  | 5.5                       | 617                       | SH6A    | TH6A  |
| SL_-10.9-9.4      | 10.90                            | 9.40                                     | 17.60                                  | 11.3                      | 558                       | SH6A    | TH6A  |
| Coupled Inductors |                                  |                                          |                                        |                           |                           |         |       |
| SLC_-1.1-43.6     | 1.10                             | 43.60                                    | 70.30                                  | 280.7                     | 26                        | SC3     | TC3   |
| SLC_-2.7-21.9     | 2.70                             | 21.90                                    | 42.90                                  | 81.0                      | 80                        | SC4     | --    |
| SLC_-6.4-4.03     | 6.40                             | 4.03                                     | 6.50                                   | 19.0                      | 82                        | SC5     | TC5   |
| SLC_-23.8-0.53    | 23.80                            | 0.53                                     | 0.88                                   | 1.2                       | 150                       | SHC4    | --    |
| SLC_-21-1.1       | 21.00                            | 1.10                                     | 2.10                                   | 2.1                       | 243                       | SHC5    | --    |
| SLC_-22.4-2.1     | 22.40                            | 2.10                                     | 4.00                                   | 3.1                       | 527                       | SHC6    | THC6  |

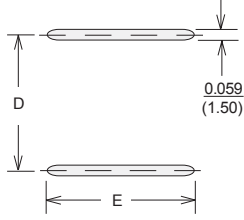
**Note:** The inductance values listed above are based on a 55°C temperature rise and 25°C ambient temperature.

## Mounting Styles • SL Series Toroidal Power Inductors

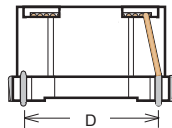
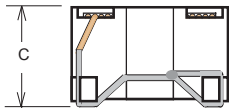
### Type S1 - S5



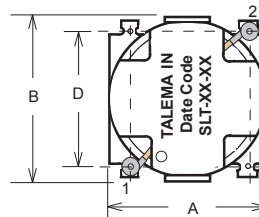
#### Suggested Pad Layout



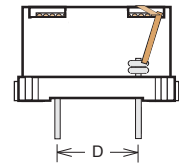
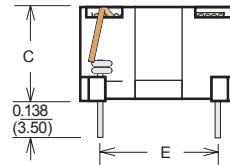
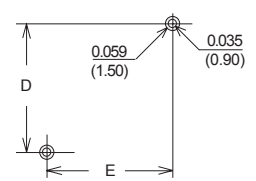
#### Schematic



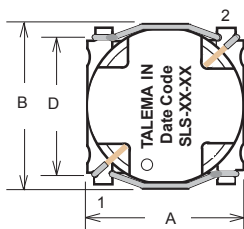
### Type T1 - T5



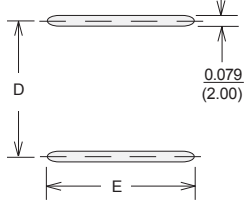
#### Suggested Board Layout (Top Side View)



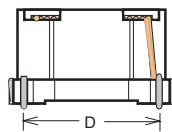
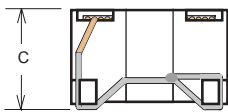
### Type SH3 - SH6A



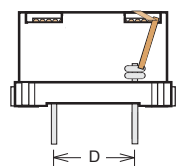
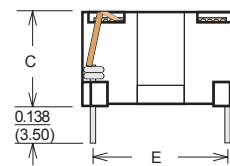
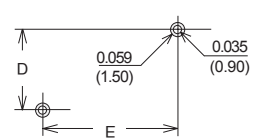
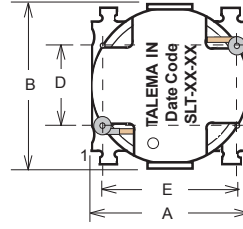
#### Suggested Pad Layout



#### Schematic



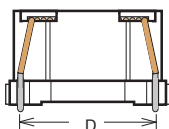
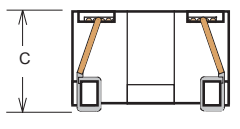
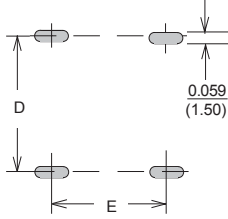
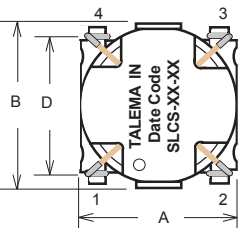
### Type TH6A



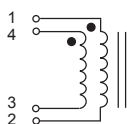
## Coupling Transformers

### Type SC3 - SC5

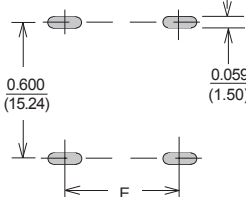
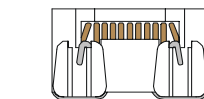
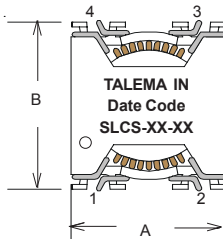
#### Suggested Pad Layout



#### Schematic

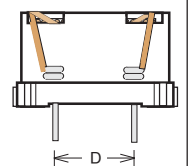
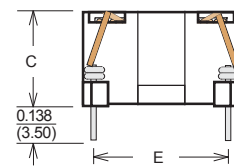
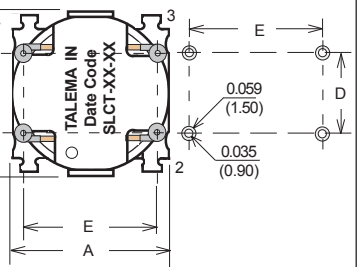
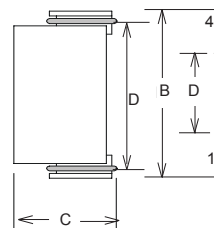


### Type SC4



### Type TC3 & TC5

#### Suggested Pad Layout

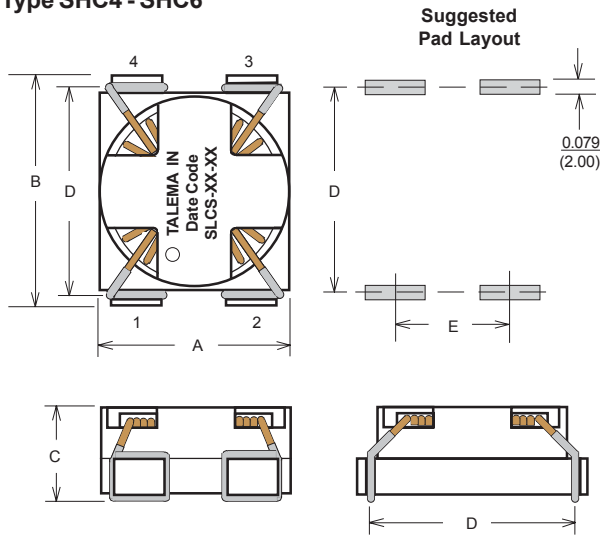


## Mounting Styles • SL Series Toroidal Power Inductors

### Coupling Transformers

#### Surface Mount Style

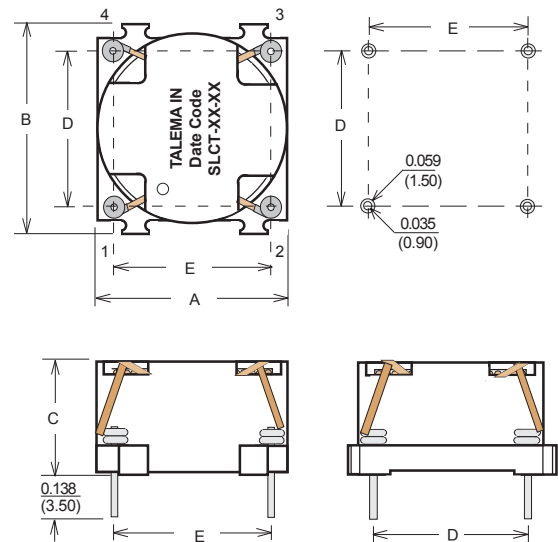
##### Type SHC4 - SHC6



#### Through Hole Style

##### THC6

##### Suggested Board Layout (Top Side View)



#### Note:

When ordering, add "S" or "T" to the basic part number to denote preferred mounting style.

**Example:** SLS-3.4-1.03 for SMD or SLT-3.4-1.03 for through hole mounting.

| Mounting Style | Size Code | Dimensions - Inches $\pm 0.010$ (mm $\pm 0.25$ ) |                  |                  |                  |                  |
|----------------|-----------|--------------------------------------------------|------------------|------------------|------------------|------------------|
|                |           | A                                                | B                | C                | D                | E                |
| "S"            | S1        | 0.339<br>(8.60)                                  | 0.339<br>(8.60)  | 0.220<br>(5.60)  | 0.268<br>(6.90)  | 0.354<br>(9.00)  |
|                | S2        | 0.433<br>(11.00)                                 | 0.441<br>(11.20) | 0.303<br>(7.70)  | 0.358<br>(9.10)  | 0.413<br>(10.50) |
|                | S3        | 0.551<br>(14.00)                                 | 0.559<br>(14.20) | 0.343<br>(8.70)  | 0.461<br>(11.70) | 0.520<br>(13.20) |
|                | S4        | 0.591<br>(15.00)                                 | 0.614<br>(15.60) | 0.390<br>(9.90)  | 0.508<br>(12.90) | 0.551<br>(14.00) |
|                | S5        | 0.669<br>(17.00)                                 | 0.701<br>(17.80) | 0.441<br>(11.20) | 0.591<br>(15.00) | 0.630<br>(16.00) |
| "SH"           | SH3       | 0.620<br>(15.75)                                 | 0.605<br>(15.37) | 0.370<br>(9.40)  | 0.500<br>(12.70) | 0.500<br>(12.70) |
|                | SH4       | 0.670<br>(17.02)                                 | 0.670<br>(17.02) | 0.390<br>(9.90)  | 0.560<br>(14.22) | 0.490<br>(12.45) |
|                | SH5       | 0.740<br>(18.80)                                 | 0.740<br>(18.80) | 0.390<br>(9.90)  | 0.630<br>(16.00) | 0.640<br>(16.26) |
|                | SH6A      | 0.925<br>(23.50)                                 | 0.957<br>(24.30) | 0.445<br>(11.30) | 0.843<br>(21.40) | 0.728<br>(18.50) |
| "SC"           | SC3       | 0.551<br>(14.00)                                 | 0.630<br>(16.00) | 0.343<br>(8.70)  | 0.530<br>(13.46) | 0.348<br>(8.84)  |
|                | SC4       | 0.590<br>(14.99)                                 | 0.715<br>(18.16) | 0.390<br>(9.91)  | 0.600<br>(15.24) | 0.370<br>(9.40)  |
|                | SC5       | 0.662<br>(16.82)                                 | 0.760<br>(19.31) | 0.413<br>(10.50) | 0.660<br>(16.76) | 0.445<br>(11.30) |
| "SHC"          | SHC4      | 0.715<br>(18.16)                                 | 0.865<br>(21.97) | 0.390<br>(9.91)  | 0.760<br>(19.30) | 0.360<br>(9.14)  |
|                | SHC5      | 0.800<br>(20.32)                                 | 0.910<br>(23.11) | 0.390<br>(9.91)  | 0.800<br>(20.32) | 0.440<br>(11.18) |
|                | SHC6      | 1.000<br>(25.40)                                 | 1.104<br>(28.05) | 0.409<br>(10.40) | 1.010<br>(25.65) | 0.620<br>(15.75) |

| Mounting Style | Size Code | Dimensions - Inches $\pm 0.010$ (mm $\pm 0.25$ ) |                  |                  |                  |                  |                    |
|----------------|-----------|--------------------------------------------------|------------------|------------------|------------------|------------------|--------------------|
|                |           | A                                                | B                | C                | D                | E                | Lead $\varnothing$ |
| "T"            | T1        | 0.339<br>(8.60)                                  | 0.339<br>(8.60)  | 0.201<br>(5.10)  | 0.250<br>(6.35)  | 0.250<br>(6.35)  | 0.020<br>(0.50)    |
|                | T2        | 0.433<br>(11.00)                                 | 0.441<br>(11.20) | 0.280<br>(7.10)  | 0.300<br>(7.62)  | 0.300<br>(7.62)  | 0.020<br>(0.50)    |
|                | T3        | 0.551<br>(14.00)                                 | 0.559<br>(14.20) | 0.311<br>(7.90)  | 0.375<br>(9.52)  | 0.375<br>(9.52)  | 0.020<br>(0.50)    |
|                | T4        | 0.591<br>(15.00)                                 | 0.614<br>(15.60) | 0.358<br>(9.10)  | 0.300<br>(7.62)  | 0.500<br>(12.70) | 0.022<br>(0.55)    |
|                | T5        | 0.669<br>(17.00)                                 | 0.701<br>(17.80) | 0.409<br>(10.40) | 0.600<br>(15.24) | 0.500<br>(12.70) | .026<br>(0.65)     |
| "TH"           | --        | --                                               | --               | --               | --               | --               | --                 |
|                | --        | --                                               | --               | --               | --               | --               | --                 |
|                | --        | --                                               | --               | --               | --               | --               | --                 |
|                | TH6A      | 0.925<br>(23.50)                                 | 0.957<br>(24.30) | 0.386<br>(9.80)  | 0.650<br>(16.51) | 0.800<br>(20.32) | 0.031<br>(0.80)    |
| "TC"           | TC3       | 0.551<br>(14.00)                                 | 0.630<br>(16.00) | 0.327<br>(8.30)  | 0.500<br>(12.70) | 0.400<br>(10.16) | 0.024<br>(0.60)    |
|                | --        | --                                               | --               | --               | --               | --               | --                 |
|                | TC5       | 0.662<br>(16.82)                                 | 0.760<br>(19.31) | 0.362<br>(9.20)  | 0.500<br>(12.70) | 0.500<br>(12.70) | 0.024<br>(0.60)    |
| "THC"          | --        | --                                               | --               | --               | --               | --               | --                 |
|                | --        | --                                               | --               | --               | --               | --               | --                 |
|                | THC6      | 1.000<br>(25.40)                                 | 1.104<br>(28.05) | 0.357<br>(9.08)  | 1.000<br>(25.40) | 0.600<br>(15.24) | 0.028<br>(0.70)    |

## Regional Locations - Design, Manufacturing, Sales & Marketing

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### Locations of Talema Group Regional Offices

