

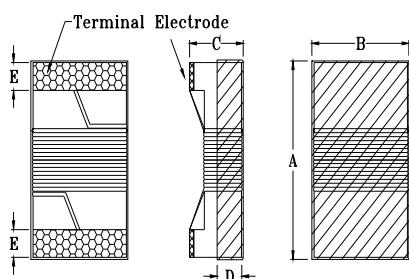
# High Frequency Winding Type Chip Inductor SWI1008UF-SERIES

## 1. Features

1. Ceramic core wire wound construction.
2. No batch to batch variations in inductance
3. High Reliability due to ceramic wire wound construction.
4. High frequency application.
5. Small footprint as well as low profile.
6. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
7. Operating temperature -40~+125°C (Including self - temperature rise)



## 2. Dimensions



| Size    | A(mm)     | B(mm)     | C(mm)     | D(mm)     | E(mm)     |
|---------|-----------|-----------|-----------|-----------|-----------|
| SWI1008 | 2.92 max. | 2.79 max. | 2.20 max. | 1.20 ref. | 0.55±0.10 |

Unit:mm

## 3. Part Numbering

|            |             |          |          |   |            |          |
|------------|-------------|----------|----------|---|------------|----------|
| <b>SWI</b> | <b>1008</b> | <b>U</b> | <b>F</b> | - | <b>10N</b> | <b>J</b> |
| A          | B           | C        | D        |   | E          | F        |

A: Series

B: Dimension

LxW

C: Material

D: Lead Free Code

E: Inductance

10N=10nH

F: Inductance Tolerance

G=±2%, J=±5%, K=±10%

## 4. Specification

| Part Number    | Inductance (nH) | Tolerance | Test Frequency (Hz) | Q min. | Test Frequency (MHz) | Rated Current (mA) max. | DCR (Ω) max. | SRF (MHz) min. |
|----------------|-----------------|-----------|---------------------|--------|----------------------|-------------------------|--------------|----------------|
| SWI1008UF-10N□ | 10              | G, J, K   | 0.1V/50M            | 50     | 500                  | 1000                    | 0.08         | 4100           |
| SWI1008UF-12N□ | 12              | G, J, K   | 0.1V/50M            | 50     | 500                  | 1000                    | 0.09         | 3300           |
| SWI1008UF-15N□ | 15              | G, J, K   | 0.1V/50M            | 50     | 500                  | 1000                    | 0.18         | 2500           |
| SWI1008UF-18N□ | 18              | G, J, K   | 0.1V/50M            | 50     | 350                  | 1000                    | 0.11         | 2500           |
| SWI1008UF-22N□ | 22              | G, J, K   | 0.1V/50M            | 55     | 350                  | 1000                    | 0.12         | 2400           |
| SWI1008UF-27N□ | 27              | G, J, K   | 0.1V/50M            | 55     | 350                  | 1000                    | 0.13         | 1600           |
| SWI1008UF-33N□ | 33              | G, J, K   | 0.1V/50M            | 60     | 350                  | 1000                    | 0.14         | 1600           |
| SWI1008UF-39N□ | 39              | G, J, K   | 0.1V/50M            | 60     | 350                  | 1000                    | 0.15         | 1500           |
| SWI1008UF-47N□ | 47              | G, J, K   | 0.1V/50M            | 65     | 350                  | 1000                    | 0.16         | 1500           |
| SWI1008UF-56N□ | 56              | G, J, K   | 0.1V/50M            | 65     | 350                  | 1000                    | 0.18         | 1300           |
| SWI1008UF-68N□ | 68              | G, J, K   | 0.1V/50M            | 65     | 350                  | 1000                    | 0.20         | 1300           |
| SWI1008UF-82N□ | 82              | G, J, K   | 0.1V/50M            | 60     | 350                  | 1000                    | 0.22         | 1000           |
| SWI1008UF-R10□ | 100             | G, J, K   | 0.1V/25M            | 60     | 350                  | 650                     | 0.56         | 1000           |
| SWI1008UF-R12□ | 120             | G, J, K   | 0.1V/25M            | 60     | 350                  | 650                     | 0.63         | 950            |

| Part Number    | Inductance (nH) | Tolerance | Test Frequency (Hz) | Q min. | Test Frequency (MHz) | Rated Current (mA) max. | DCR ( $\Omega$ ) max. | SRF (MHz) min. |
|----------------|-----------------|-----------|---------------------|--------|----------------------|-------------------------|-----------------------|----------------|
| SWI1008UF-R15□ | 150             | G, J,K    | 0.1V/25M            | 45     | 100                  | 580                     | 0.70                  | 850            |
| SWI1008UF-R18□ | 180             | G, J,K    | 0.1V/25M            | 45     | 100                  | 620                     | 0.77                  | 750            |
| SWI1008UF-R22□ | 220             | G, J,K    | 0.1V/25M            | 45     | 100                  | 500                     | 0.84                  | 700            |
| SWI1008UF-R27□ | 270             | G, J,K    | 0.1V/25M            | 45     | 100                  | 500                     | 0.91                  | 600            |
| SWI1008UF-R33□ | 330             | G, J,K    | 0.1V/25M            | 45     | 100                  | 450                     | 1.05                  | 570            |
| SWI1008UF-R39□ | 390             | G, J,K    | 0.1V/25M            | 45     | 100                  | 470                     | 1.12                  | 500            |
| SWI1008UF-R47□ | 470             | G, J,K    | 0.1V/25M            | 45     | 100                  | 470                     | 1.19                  | 450            |
| SWI1008UF-R56□ | 560             | G, J,K    | 0.1V/25M            | 45     | 100                  | 400                     | 1.33                  | 415            |
| SWI1008UF-R62□ | 620             | G, J,K    | 0.1V/25M            | 45     | 100                  | 300                     | 1.40                  | 375            |
| SWI1008UF-R68□ | 680             | G, J,K    | 0.1V/25M            | 45     | 100                  | 400                     | 1.47                  | 375            |
| SWI1008UF-R75□ | 750             | G, J,K    | 0.1V/25M            | 45     | 100                  | 360                     | 1.54                  | 360            |
| SWI1008UF-R82□ | 820             | G, J,K    | 0.1V/25M            | 45     | 100                  | 400                     | 1.61                  | 350            |
| SWI1008UF-R91□ | 910             | G, J,K    | 0.1V/25M            | 35     | 50                   | 380                     | 1.68                  | 320            |
| SWI1008UF-1R0□ | 1000            | G, J,K    | 0.1V/25M            | 35     | 50                   | 370                     | 1.75                  | 290            |
| SWI1008UF-1R2□ | 1200            | G, J,K    | 0.1V/7.9M           | 35     | 50                   | 310                     | 2.00                  | 250            |
| SWI1008UF-1R5□ | 1500            | G, J,K    | 0.1V/7.9M           | 28     | 50                   | 330                     | 2.23                  | 200            |
| SWI1008UF-1R8□ | 1800            | G, J,K    | 0.1V/7.9M           | 28     | 50                   | 300                     | 2.60                  | 160            |
| SWI1008UF-2R2□ | 2200            | G, J,K    | 0.1V/7.9M           | 28     | 50                   | 280                     | 2.80                  | 160            |
| SWI1008UF-2R7□ | 2700            | G, J,K    | 0.1V/7.9M           | 22     | 25                   | 290                     | 3.20                  | 140            |
| SWI1008UF-3R3□ | 3300            | G, J,K    | 0.1V/7.9M           | 22     | 25                   | 290                     | 3.40                  | 110            |
| SWI1008UF-3R9□ | 3900            | G, J,K    | 0.1V/7.9M           | 20     | 25                   | 260                     | 3.60                  | 100            |
| SWI1008UF-4R7□ | 4700            | G, J,K    | 0.1V/7.9M           | 18     | 7.9                  | 200                     | 4.00                  | 32             |
| SWI1008UF-5R6□ | 5600            | G, J,K    | 0.1V/7.9M           | 18     | 7.9                  | 200                     | 4.00                  | 25             |
| SWI1008UF-6R8□ | 6800            | G, J,K    | 0.1V/7.9M           | 18     | 7.9                  | 200                     | 4.90                  | 21             |
| SWI1008UF-8R2□ | 8200            | G, J,K    | 0.1V/7.9M           | 16     | 7.9                  | 170                     | 6.00                  | 16             |
| SWI1008UF-100□ | 10000           | G, J,K    | 0.1V/2.52M          | 15     | 7.9                  | 170                     | 8.00                  | 14             |

## 5. Recommended PC Board Pattern

| Chip size |      |         |         |         |          |          | Land Patterns For Reflow Soldering |       |       |
|-----------|------|---------|---------|---------|----------|----------|------------------------------------|-------|-------|
| Series    | Type | A(mm)   | B(mm)   | C(mm)   | D(mm)    | E(mm)    | L(mm)                              | G(mm) | H(mm) |
| SWI       | 1008 | 2.92max | 2.79max | 2.20max | 1.20 ref | 0.55±0.1 | 3.31                               | 1.526 | 2.54  |

