

## T Y P E W I C

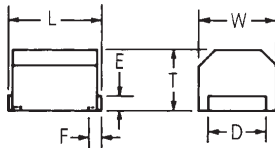
### FEATURES

- Excellent solderability by reflow soldering, flow soldering or soldering iron.
- Excellent for automatic insertion in the higher density circuit design.
- Resistant to external shocks and pressure.
- Highly reliable in wide temperature and humidity ranges. Excellent Q characteristics.
- Inductance of 0.01 to 100  $\mu\text{H}$  (WIC1008), 0.01 to 220  $\mu\text{H}$  (WIC1210) and 1 to 1000  $\mu\text{H}$  (WIC1812).
- Ideal application for radio, auto, telecommunications, tuners, instrumental and hybrid ICs.

### DIMENSIONS

Unit : mm  
(Dimensions in inches)

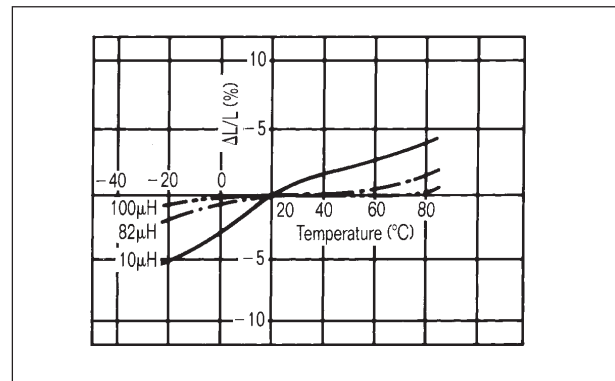
| Type    | L                      | W                      | T                      | D                      | E                       | F                        |
|---------|------------------------|------------------------|------------------------|------------------------|-------------------------|--------------------------|
| WIC1008 | 2.5±0.2<br>(.100±.008) | 2.0±0.2<br>(.080±.008) | 1.8±0.2<br>(.072±.008) | 1.4±0.1<br>(.056±.004) | 0.5±0.005<br>(.02±.002) | 0.4±0.005<br>(.016±.002) |
| WIC1210 | 3.2±0.2<br>(.126±.008) | 2.5±0.2<br>(.098±.008) | 2.2±0.2<br>(.087±.008) | 1.9±0.1<br>(.075±.004) | 0.5±0.005<br>(.02±.002) | 0.4±0.005<br>(.016±.002) |
| WIC1812 | 4.5±0.3<br>(.177±.008) | 3.2±0.2<br>(.126±.008) | 3.2±0.2<br>(.126±.008) | 2.6±0.1<br>(.102±.004) | 0.5±0.005<br>(.02±.002) | 0.4±0.005<br>(.016±.002) |



### CHARACTERISTICS

|                              |   |
|------------------------------|---|
| Temperature rise             | 20°C max.   |
| Ambient temperature          | 80°C  |
| Storage temperature          | -40°C to +100°C   |
| Operating temperature        | -20°C to +100°C   |
| Terminal tensile strength    | 1 kg min. (0.5kg for the WIC1210 & WIC1008)   |
| Current rating               | Value obtained when current flows and when temperature has risen to 20°C or value obtained when LC current flows and when the initial value of inductance has fallen by 10%, whichever smaller. |
| Resistance to soldering heat | 260°C 10 seconds  |
| Resistance to solvent        | Conforms to MIL-STD-202E  |

### TEMPERATURE CHARACTERISTICS



### ORDERING INFORMATION

|         |   |                                 |           |   |   |                             |
|---------|---|---------------------------------|-----------|---|---|-----------------------------|
| WIC1210 | - | 221                             | K         | T | F | -- Lead Free/ R oHS Packing |
| Type    |   | Inductance Symbol (three digit) | Tolerance |   |   |                             |
|         |   |                                 | J: ±5%    |   |   |                             |
|         |   |                                 | K: ±10%   |   |   |                             |
|         |   |                                 | M: ±20%   |   |   |                             |
|         |   |                                 |           |   |   | B Bulk Pack                 |
|         |   |                                 |           |   |   | T: Tape & Reel              |

### TAPE PACKAGING

| Size    | Qty/Reel |
|---------|----------|
| WIC1008 | 2,000    |
| WIC1210 | 2,000    |
| WIC1812 | 500      |

# WOUND INDUCTOR CHIPS — TYPE WIC

## WIC1008 ELECTRICAL SPECIFICATIONS

| SMEC Part No. | Inductance (μH) | Inductance Symbol | Q min. | L, Q test frequency (MHz) | Self resonant frequency (MHz) min. | DC resistance (Ω) max. | I <sub>dc</sub> (mA) max. |
|---------------|-----------------|-------------------|--------|---------------------------|------------------------------------|------------------------|---------------------------|
| WIC1008-10NJT | 0.010           | 10N               | 15     | 100                       | 2150                               | 0.26                   | 530                       |
| WIC1008-12NJT | 0.012           | 12N               | 15     | 100                       | 2050                               | 0.27                   | 500                       |
| WIC1008-15NJT | 0.015           | 15N               | 15     | 100                       | 1850                               | 0.29                   | 480                       |
| WIC1008-18NJT | 0.018           | 18N               | 15     | 100                       | 1650                               | 0.31                   | 450                       |
| WIC1008-22NJT | 0.022           | 22N               | 15     | 100                       | 1550                               | 0.37                   | 420                       |
| WIC1008-27NJT | 0.027           | 27N               | 15     | 100                       | 1400                               | 0.40                   | 410                       |
| WIC1008-33NJT | 0.033           | 33N               | 20     | 100                       | 1250                               | 0.42                   | 400                       |
| WIC1008-39NJT | 0.039           | 39N               | 20     | 100                       | 1100                               | 0.45                   | 380                       |
| WIC1008-47NJT | 0.047           | 47N               | 20     | 100                       | 1050                               | 0.50                   | 360                       |
| WIC1008-56NJT | 0.056           | 56N               | 20     | 100                       | 950                                | 0.60                   | 340                       |
| WIC1008-68NJT | 0.068           | 68N               | 20     | 100                       | 900                                | 0.65                   | 320                       |
| WIC1008-82NJT | 0.082           | 82N               | 20     | 100                       | 850                                | 0.75                   | 300                       |
| WIC1008-R10JT | 0.10            | R10               | 20     | 100                       | 750                                | 0.80                   | 280                       |
| WIC1008-R12JT | 0.12            | R12               | 30     | 25.2                      | 700                                | 0.30                   | 550                       |
| WIC1008-R15JT | 0.15            | R15               | 30     | 25.2                      | 550                                | 0.35                   | 500                       |
| WIC1008-R18JT | 0.18            | R18               | 30     | 25.2                      | 500                                | 0.40                   | 460                       |
| WIC1008-R22JT | 0.22            | R22               | 30     | 25.2                      | 450                                | 0.50                   | 430                       |
| WIC1008-R27JT | 0.27            | R27               | 30     | 25.2                      | 425                                | 0.55                   | 420                       |
| WIC1008-R33JT | 0.33            | R33               | 30     | 25.2                      | 400                                | 0.60                   | 400                       |
| WIC1008-R39JT | 0.39            | R39               | 30     | 25.2                      | 375                                | 0.65                   | 375                       |
| WIC1008-R47JT | 0.47            | R47               | 30     | 25.2                      | 350                                | 0.68                   | 350                       |
| WIC1008-R56JT | 0.56            | R56               | 30     | 25.2                      | 325                                | 0.75                   | 325                       |
| WIC1008-R68JT | 0.68            | R68               | 30     | 25.2                      | 300                                | 0.85                   | 300                       |
| WIC1008-R82JT | 0.82            | R82               | 30     | 25.2                      | 260                                | 1.00                   | 260                       |
| WIC1008-1R0JT | 1.0             | 1R0               | 30     | 7.96                      | 245                                | 1.10                   | 245                       |
| WIC1008-1R2JT | 1.2             | 1R2               | 30     | 7.96                      | 230                                | 1.20                   | 230                       |
| WIC1008-1R5JT | 1.5             | 1R5               | 30     | 7.96                      | 182                                | 1.30                   | 220                       |
| WIC1008-1R8JT | 1.8             | 1R8               | 30     | 7.96                      | 135                                | 1.45                   | 210                       |
| WIC1008-2R2JT | 2.2             | 2R2               | 30     | 7.96                      | 105                                | 1.55                   | 200                       |
| WIC1008-2R7JT | 2.7             | 2R7               | 30     | 7.96                      | 70                                 | 1.70                   | 195                       |
| WIC1008-3R3JT | 3.3             | 3R3               | 30     | 7.96                      | 55                                 | 1.90                   | 185                       |
| WIC1008-3R9JT | 3.9             | 3R9               | 30     | 7.96                      | 48                                 | 2.10                   | 180                       |
| WIC1008-4R7JT | 4.7             | 4R7               | 30     | 7.96                      | 43                                 | 2.30                   | 175                       |
| WIC1008-5R6JT | 5.6             | 5R6               | 25     | 7.96                      | 42                                 | 2.50                   | 175                       |
| WIC1008-6R8JT | 6.8             | 6R8               | 25     | 7.96                      | 39                                 | 2.70                   | 165                       |
| WIC1008-8R2JT | 8.2             | 8R2               | 25     | 7.96                      | 36                                 | 3.05                   | 160                       |
| WIC1008-100JT | 10              | 100               | 25     | 2.52                      | 33                                 | 3.50                   | 155                       |
| WIC1008-120JT | 12              | 120               | 25     | 2.52                      | 30                                 | 3.80                   | 150                       |
| WIC1008-150JT | 15              | 150               | 25     | 2.52                      | 26                                 | 4.40                   | 140                       |
| WIC1008-180JT | 18              | 180               | 25     | 2.52                      | 24                                 | 4.80                   | 130                       |
| WIC1008-220JT | 22              | 220               | 25     | 2.52                      | 22                                 | 5.50                   | 125                       |
| WIC1008-270JT | 27              | 270               | 25     | 2.52                      | 21                                 | 6.30                   | 115                       |
| WIC1008-330JT | 33              | 330               | 25     | 2.52                      | 20                                 | 7.10                   | 110                       |
| WIC1008-390JT | 39              | 390               | 20     | 2.52                      | 18                                 | 9.50                   | 90                        |
| WIC1008-470JT | 47              | 470               | 20     | 2.52                      | 17                                 | 11.10                  | 80                        |
| WIC1008-560JT | 56              | 560               | 20     | 2.52                      | 16                                 | 12.10                  | 75                        |
| WIC1008-680JT | 68              | 680               | 20     | 2.52                      | 15                                 | 16.60                  | 70                        |
| WIC1008-820JT | 82              | 820               | 20     | 2.52                      | 13                                 | 19.00                  | 65                        |
| WIC1008-101JT | 100             | 101               | 15     | 0.796                     | 12                                 | 21.00                  | 60                        |

Inductance and Q are measured with a Q-meter.

## WIC1210 ELECTRICAL SPECIFICATIONS

| SMEC Part No. | Inductance (μH) | Inductance Symbol | Q min. | L, Q Test Freq. (MHz) | Self resonant frequency (MHz) min. | DC Resistance (Ω) max. | I <sub>dc</sub> (mA) max. |
|---------------|-----------------|-------------------|--------|-----------------------|------------------------------------|------------------------|---------------------------|
| WIC1210-10NJT | 0.010           | 10N               | 15     | 100                   | 2500                               | 0.13                   | 450                       |
| WIC1210-12NJT | 0.012           | 12N               | 17     | 100                   | 2300                               | 0.14                   | 450                       |
| WIC1210-15NJT | 0.015           | 15N               | 19     | 100                   | 2100                               | 0.16                   | 450                       |
| WIC1210-18NJT | 0.018           | 18N               | 21     | 100                   | 1900                               | 0.18                   | 450                       |
| WIC1210-22NJT | 0.022           | 22N               | 23     | 100                   | 1700                               | 0.20                   | 450                       |
| WIC1210-27NJT | 0.027           | 27N               | 23     | 100                   | 1500                               | 0.22                   | 450                       |
| WIC1210-33NJT | 0.033           | 33N               | 25     | 100                   | 1400                               | 0.24                   | 450                       |
| WIC1210-39NJT | 0.039           | 39N               | 25     | 100                   | 1300                               | 0.27                   | 450                       |
| WIC1210-47NJT | 0.047           | 47N               | 26     | 100                   | 1200                               | 0.30                   | 450                       |
| WIC1210-56NJT | 0.056           | 56N               | 26     | 100                   | 1100                               | 0.33                   | 450                       |
| WIC1210-68NJT | 0.068           | 68N               | 27     | 100                   | 1000                               | 0.36                   | 450                       |
| WIC1210-82NJT | 0.082           | 82N               | 27     | 100                   | 900                                | 0.40                   | 450                       |
| WIC1210-R10JT | 0.10            | R10               | 28     | 100                   | 700                                | 0.44                   | 450                       |
| WIC1210-R12JT | 0.12            | R12               | 30     | 25.2                  | 500                                | 0.22                   | 450                       |
| WIC1210-R15JT | 0.15            | R15               | 30     | 25.2                  | 450                                | 0.25                   | 450                       |
| WIC1210-R18JT | 0.18            | R18               | 30     | 25.2                  | 400                                | 0.28                   | 450                       |
| WIC1210-R22JT | 0.22            | R22               | 30     | 25.2                  | 350                                | 0.32                   | 450                       |
| WIC1210-R27JT | 0.27            | R27               | 30     | 25.2                  | 320                                | 0.36                   | 450                       |
| WIC1210-R33JT | 0.33            | R33               | 30     | 25.2                  | 300                                | 0.40                   | 450                       |
| WIC1210-R39JT | 0.39            | R39               | 30     | 25.2                  | 250                                | 0.45                   | 450                       |
| WIC1210-R47JT | 0.47            | R47               | 30     | 25.2                  | 220                                | 0.50                   | 450                       |
| WIC1210-R56JT | 0.56            | R56               | 30     | 25.2                  | 180                                | 0.55                   | 450                       |
| WIC1210-R68JT | 0.68            | R68               | 30     | 25.2                  | 160                                | 0.60                   | 450                       |
| WIC1210-R82JT | 0.82            | R82               | 30     | 25.2                  | 140                                | 0.65                   | 450                       |
| WIC1210-1R0JT | 1.0             | 1R0               | 30     | 7.96                  | 120                                | 0.70                   | 400                       |
| WIC1210-1R2JT | 1.2             | 1R2               | 30     | 7.96                  | 100                                | 0.75                   | 390                       |
| WIC1210-1R5JT | 1.5             | 1R5               | 30     | 7.96                  | 85                                 | 0.85                   | 370                       |
| WIC1210-1R8JT | 1.8             | 1R8               | 30     | 7.96                  | 80                                 | 0.90                   | 350                       |
| WIC1210-2R2JT | 2.2             | 2R2               | 30     | 7.96                  | 75                                 | 1.00                   | 320                       |
| WIC1210-2R7JT | 2.7             | 2R7               | 30     | 7.96                  | 70                                 | 1.10                   | 290                       |
| WIC1210-3R3JT | 3.3             | 3R3               | 30     | 7.96                  | 60                                 | 1.20                   | 260                       |
| WIC1210-3R9JT | 3.9             | 3R9               | 30     | 7.96                  | 55                                 | 1.30                   | 250                       |
| WIC1210-4R7JT | 4.7             | 4R7               | 30     | 7.96                  | 50                                 | 1.50                   | 220                       |
| WIC1210-5R6JT | 5.6             | 5R6               | 30     | 7.96                  | 45                                 | 1.60                   | 200                       |
| WIC1210-6R8JT | 6.8             | 6R8               | 30     | 7.96                  | 40                                 | 1.80                   | 180                       |
| WIC1210-8R2JT | 8.2             | 8R2               | 30     | 7.96                  | 35                                 | 2.00                   | 170                       |
| WIC1210-100JT | 10              | 100               | 30     | 2.52                  | 30                                 | 2.10                   | 150                       |
| WIC1210-120JT | 12              | 120               | 30     | 2.52                  | 20                                 | 2.50                   | 140                       |
| WIC1210-150JT | 15              | 150               | 30     | 2.52                  | 20                                 | 2.80                   | 130                       |
| WIC1210-180JT | 18              | 180               | 30     | 2.52                  | 20                                 | 3.30                   | 120                       |
| WIC1210-220JT | 22              | 220               | 30     | 2.52                  | 20                                 | 3.70                   | 110                       |
| WIC1210-270JT | 27              | 270               | 30     | 2.52                  | 20                                 | 5.00                   | 80                        |
| WIC1210-330JT | 33              | 330               | 30     | 2.52                  | 17                                 | 5.60                   | 70                        |
| WIC1210-390JT | 39              | 390               | 30     | 2.52                  | 16                                 | 6.40                   | 65                        |
| WIC1210-470JT | 47              | 470               | 30     | 2.52                  | 15                                 | 7.00                   | 60                        |
| WIC1210-560JT | 56              | 560               | 30     | 2.52                  | 13                                 | 8.00                   | 55                        |
| WIC1210-680JT | 68              | 680               | 30     | 2.52                  | 12                                 | 9.00                   | 50                        |
| WIC1210-820JT | 82              | 820               | 30     | 2.52                  | 11                                 | 10.00                  | 45                        |
| WIC1210-101JT | 100             | 101               | 20     | 0.796                 | 10                                 | 10                     | 40                        |
| WIC1210-121JT | 120             | 121               | 20     | 0.796                 | 10                                 | 11                     | 70                        |
| WIC1210-151JT | 150             | 151               | 20     | 0.796                 | 8                                  | 15                     | 65                        |
| WIC1210-181JT | 180             | 181               | 20     | 0.796                 | 7                                  | 17                     | 60                        |
| WIC1210-221JT | 220             | 221               | 20     | 0.796                 | 7                                  | 21                     | 50                        |
| WIC1210-271JT | 270             | 271               | 20     | 0.796                 | 6                                  | 28                     | 45                        |
| WIC1210-331JT | 330             | 331               | 20     | 0.796                 | 5                                  | 34                     | 40                        |
| WIC1210-391JT | 390             | 391               | 20     | 0.796                 | 5                                  | 36                     | 35                        |
| WIC1210-471JT | 470             | 471               | 20     | 0.796                 | 4                                  | 40                     | 25                        |

Inductance and Q are measured with a Q meter.

# WOUND INDUCTOR CHIPS — TYPE WIC

## WIC1812 ELECTRICAL SPECIFICATIONS

| SMEC Part No. | Inductance (μH) | Inductance Symbol | Q min. | L,Q test frequency (MHz) | Self resonant frequency (MHz) min. | DC resistance (Ω) max. | I <sub>dc</sub> (mA) max. |
|---------------|-----------------|-------------------|--------|--------------------------|------------------------------------|------------------------|---------------------------|
| WIC1812-1R0JT | 1.0             | 1R0               | 50     | 7.96                     | 100                                | 0.50                   | 450                       |
| WIC1812-1R2JT | 1.2             | 1R2               | 50     | 7.96                     | 80                                 | 0.55                   | 430                       |
| WIC1812-1R5JT | 1.5             | 1R5               | 50     | 7.96                     | 70                                 | 0.60                   | 410                       |
| WIC1812-1R8JT | 1.8             | 1R8               | 50     | 7.96                     | 60                                 | 0.65                   | 390                       |
| WIC1812-2R2JT | 2.2             | 2R2               | 50     | 7.96                     | 55                                 | 0.70                   | 380                       |
| WIC1812-2R7JT | 2.7             | 2R7               | 50     | 7.96                     | 50                                 | 0.75                   | 370                       |
| WIC1812-3R3JT | 3.3             | 3R3               | 50     | 7.96                     | 45                                 | 0.80                   | 355                       |
| WIC1812-3R9JT | 3.9             | 3R9               | 50     | 7.96                     | 40                                 | 0.90                   | 330                       |
| WIC1812-4R7JT | 4.7             | 4R7               | 50     | 7.96                     | 35                                 | 1.00                   | 315                       |
| WIC1812-5R6JT | 5.6             | 5R6               | 50     | 7.96                     | 33                                 | 1.10                   | 300                       |
| WIC1812-6R8JT | 6.8             | 6R8               | 50     | 7.96                     | 27                                 | 1.20                   | 285                       |
| WIC1812-8R2JT | 8.2             | 8R2               | 50     | 7.96                     | 25                                 | 1.40                   | 270                       |
| WIC1812-100JT | 10.0            | 100               | 50     | 2.52                     | 20                                 | 1.60                   | 250                       |
| WIC1812-120JT | 12.0            | 120               | 50     | 2.52                     | 18                                 | 2.00                   | 225                       |
| WIC1812-150JT | 15.0            | 150               | 50     | 2.52                     | 17                                 | 2.50                   | 200                       |
| WIC1812-180JT | 18.0            | 180               | 50     | 2.52                     | 15                                 | 2.80                   | 190                       |
| WIC1812-220JT | 22.0            | 220               | 50     | 2.52                     | 13                                 | 3.20                   | 180                       |
| WIC1812-270JT | 27.0            | 270               | 50     | 2.52                     | 12                                 | 3.60                   | 170                       |
| WIC1812-330JT | 33.0            | 330               | 50     | 2.52                     | 11                                 | 4.00                   | 160                       |
| WIC1812-390JT | 39.0            | 390               | 50     | 2.52                     | 10                                 | 4.50                   | 150                       |
| WIC1812-470JT | 47.0            | 470               | 50     | 2.52                     | 10                                 | 5.00                   | 140                       |
| WIC1812-560JT | 56.0            | 560               | 50     | 2.52                     | 9.0                                | 5.50                   | 135                       |
| WIC1812-680JT | 68.0            | 680               | 50     | 2.52                     | 9.0                                | 6.00                   | 130                       |
| WIC1812-820JT | 82.0            | 820               | 50     | 2.52                     | 8.0                                | 7.00                   | 120                       |
| WIC1812-101JT | 100             | 101               | 40     | 0.796                    | 8.0                                | 8.00                   | 110                       |
| WIC1812-121JT | 120             | 121               | 40     | 0.796                    | 6.0                                | 8.00                   | 110                       |
| WIC1812-151JT | 150             | 151               | 40     | 0.796                    | 5.0                                | 9.00                   | 105                       |
| WIC1812-181JT | 180             | 181               | 40     | 0.796                    | 5.0                                | 9.50                   | 102                       |
| WIC1812-221JT | 220             | 221               | 40     | 0.796                    | 4.0                                | 10.0                   | 100                       |
| WIC1812-271JT | 270             | 271               | 40     | 0.796                    | 4.0                                | 12.0                   | 92                        |
| WIC1812-331JT | 330             | 331               | 40     | 0.796                    | 3.5                                | 14.0                   | 85                        |
| WIC1812-391JT | 390             | 391               | 40     | 0.796                    | 3.0                                | 16.0                   | 80                        |
| WIC1812-471JT | 470             | 471               | 40     | 0.796                    | 3.0                                | 26.0                   | 62                        |
| WIC1812-561JT | 560             | 561               | 30     | 0.796                    | 3.0                                | 30.0                   | 50                        |
| WIC1812-681JT | 680             | 681               | 30     | 0.796                    | 3.0                                | 30.0                   | 50                        |
| WIC1812-821JT | 820             | 821               | 30     | 0.796                    | 2.5                                | 35.0                   | 30                        |
| WIC1812-102JT | 1000            | 102               | 30     | 0.252                    | 2.5                                | 40.0                   | 30                        |

Inductance and Q are measured with a Q-meter.