

T Y P E W I C 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 1.00 to 33 μH (WICC1008), 1.00 to 680 μH (WICC1210) and 1 to 330 μH (WICC1812).
- Ideal application for power supply line, radio, auto, telecommunications, tuners, instrumental and hybrid ICs.

DIMENSIONS

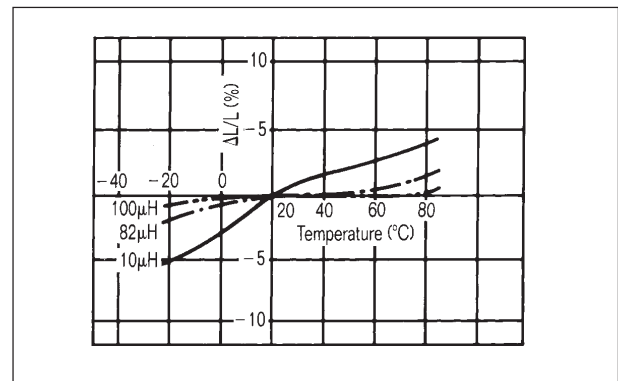
Unit : mm
(Dimensions in inches)

| | Type | L | W | T | D | E | F |
|--|-----------------|------------------------|------------------------|------------------------|------------------------|-------------------------|--------------------------|
| | WICC1008 | 2.5±0.2 (.100±.008) | 2.0±0.2 (.080±.008) | 1.8±0.2 (.072±.008) | 1.4±0.1 (.056±.004) | 0.5±0.005 (.02±.002) | 0.4±0.005 (.016±.002) |
| | WICC1210 | 3.2±0.2 (.126±.008) | 2.5±0.2 (.098±.008) | 2.2±0.2 (.087±.008) | 1.9±0.1 (.075±.004) | 0.5±0.005 (.02±.002) | 0.4±0.005 (.016±.002) |
| | WICC1812 | 4.5±0.3 (.177±.008) | 3.2±0.2 (.126±.008) | 3.2±0.2 (.126±.008) | 2.6±0.1 (.102±.004) | 0.5±0.005 (.02±.002) | 0.4±0.005 (.016±.002) |

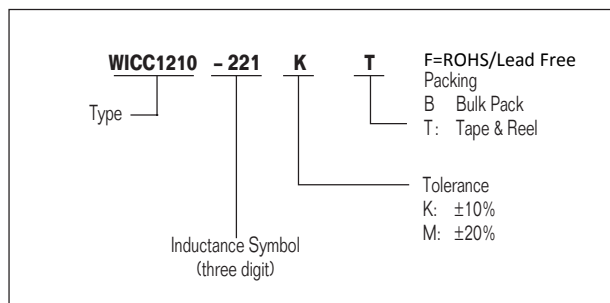
CHARACTERISTICS

| | |
|-------------------------------------|---|
| 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 WICC1210 & WICC1008) |
| 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



TAPE PACKAGING

| Size | Qty/Reel |
|----------|----------|
| WICC1008 | 2,000 |
| WICC1210 | 2,000 |
| WICC1812 | 500 |

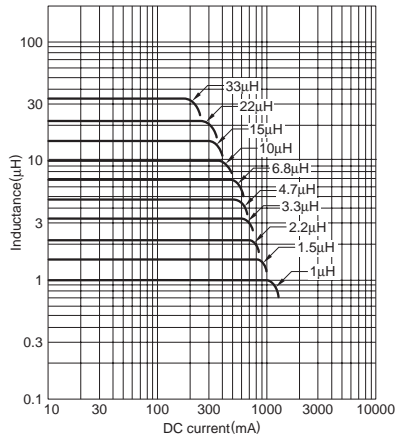
WOUND HI-CURRENT INDUCTOR CHIPS — TYPE WICC

WICC1008 ELECTRICAL SPECIFICATIONS

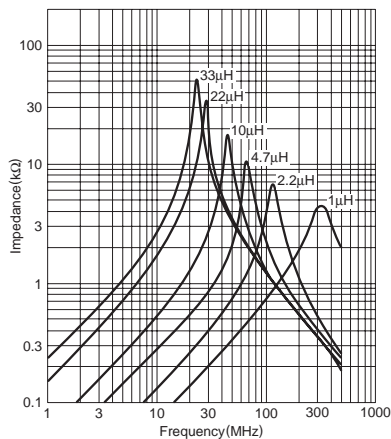
| SMEC Part No. | Inductance (μ H) | Inductance Symbol | Q min. | L, Q test frequency (MHz) | Self resonant frequency (MHz) min. | DC resistance (Ω) max. | I _{dc} (mA) max. |
|----------------|-----------------------|-------------------|--------|---------------------------|------------------------------------|---------------------------------|---------------------------|
| WICC1008-1R0MT | 1.0 | 1R0 | 20 | 7.96 | 200 | 0.34 | 475 |
| WICC1008-1R5MT | 1.5 | 1R5 | 20 | 7.96 | 165 | 0.42 | 435 |
| WICC1008-2R2MT | 2.2 | 2R2 | 20 | 7.96 | 95 | 0.50 | 390 |
| WICC1008-3R3MT | 3.3 | 3R3 | 20 | 7.96 | 55 | 0.65 | 340 |
| WICC1008-4R7MT | 4.7 | 4R7 | 20 | 7.96 | 43 | 0.80 | 285 |
| WICC1008-6R8MT | 6.8 | 6R8 | 20 | 7.96 | 39 | 1.00 | 275 |
| WICC1008-100KT | 10 | 100 | 30 | 2.52 | 32 | 1.69 | 210 |
| WICC1008-150KT | 15 | 150 | 30 | 2.52 | 21 | 2.20 | 175 |
| WICC1008-220KT | 22 | 220 | 30 | 2.52 | 18 | 2.80 | 160 |
| WICC1008-330KT | 33 | 330 | 30 | 2.52 | 16 | 4.20 | 120 |

Inductance and Q are measured with a Q-meter.

ELECTRICAL CHARACTERISTICS Inductance Change vs. DC Superposition Characteristics



Impedance vs. Frequency Characteristics

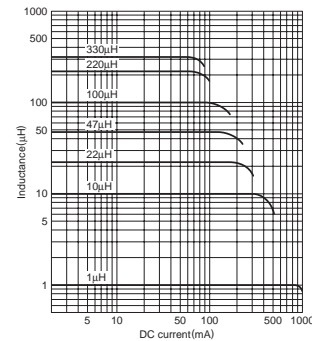


WICC1210 ELECTRICAL SPECIFICATIONS

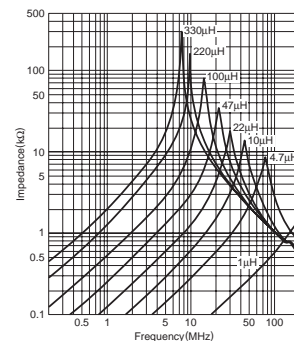
| SMEC Part No. | Inductance (μ H) | Inductance Symbol | Q min. | L, Q test frequency (MHz) | Self resonant frequency (MHz) min. | DC resistance (Ω) max. | I _{dc} (mA) max. |
|----------------|-----------------------|-------------------|--------|---------------------------|------------------------------------|---------------------------------|---------------------------|
| WICC1210-1R0MT | 1.0 | 1R0 | 10 | 7.96 | 100 | 0.08 | 850 |
| WICC1210-1R5MT | 1.5 | 1R5 | 10 | 7.96 | 80 | 0.11 | 700 |
| WICC1210-2R2MT | 2.2 | 2R2 | 10 | 7.96 | 68 | 0.13 | 600 |
| WICC1210-3R3MT | 3.3 | 3R3 | 10 | 7.96 | 54 | 0.16 | 500 |
| WICC1210-4R7MT | 4.7 | 4R7 | 15 | 7.96 | 46 | 0.20 | 430 |
| WICC1210-6R8MT | 6.8 | 6R8 | 15 | 7.96 | 38 | 0.27 | 360 |
| WICC1210-100KT | 10 | 100 | 15 | 2.52 | 30 | 0.36 | 300 |
| WICC1210-150KT | 15 | 150 | 15 | 2.52 | 26 | 0.56 | 250 |
| WICC1210-220KT | 22 | 220 | 15 | 2.52 | 21 | 0.77 | 210 |
| WICC1210-330KT | 33 | 330 | 15 | 2.52 | 17 | 1.10 | 170 |
| WICC1210-470KT | 47 | 470 | 15 | 2.52 | 14 | 1.64 | 150 |
| WICC1210-680KT | 68 | 680 | 15 | 2.52 | 12 | 2.80 | 120 |
| WICC1210-101KT | 100 | 101 | 15 | 0.796 | 10 | 3.70 | 100 |
| WICC1210-151KT | 150 | 151 | 20 | 0.796 | 8 | 6.10 | 85 |
| WICC1210-221KT | 220 | 221 | 20 | 0.796 | 7 | 8.40 | 70 |
| WICC1210-331KT | 330 | 331 | 20 | 0.796 | 6 | 12.30 | 60 |
| WICC1210-471KT | 470 | 471 | 20 | 0.796 | 4 | 22.00 | 45 |
| WICC1210-681KT | 680 | 681 | 20 | 0.796 | 3 | 28.00 | 35 |

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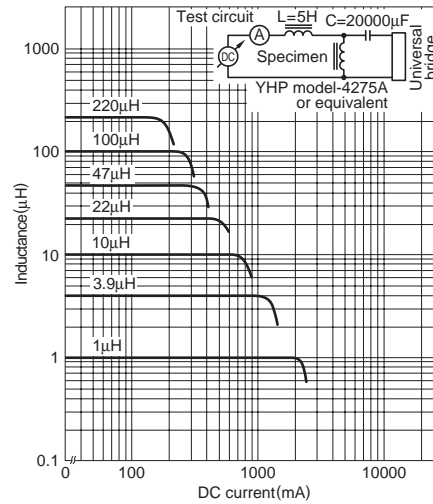
WOUND HI-CURRENT INDUCTOR CHIPS — TYPE WICC

WICC1812 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 _{dc} (mA) max. |
|----------------|-----------------|-------------------|--------|---------------------------|------------------------------------|------------------------|---------------------------|
| WICC1812-1R0KT | 1.0 | 1R0 | 10 | 7.96 | 200 | 0.11 | 1050 |
| WICC1812-1R2KT | 1.2 | 1R2 | 10 | 7.96 | 160 | 0.12 | 1000 |
| WICC1812-1R5KT | 1.5 | 1R5 | 10 | 7.96 | 130 | 0.15 | 950 |
| WICC1812-1R8KT | 1.8 | 1R8 | 10 | 7.96 | 100 | 0.16 | 900 |
| WICC1812-2R2KT | 2.2 | 2R2 | 10 | 7.96 | 80 | 0.18 | 850 |
| WICC1812-2R7KT | 2.7 | 2R7 | 10 | 7.96 | 60 | 0.20 | 800 |
| WICC1812-3R3KT | 3.3 | 3R3 | 10 | 7.96 | 45 | 0.22 | 750 |
| WICC1812-3R9KT | 3.9 | 3R9 | 10 | 7.96 | 40 | 0.24 | 700 |
| WICC1812-4R7KT | 4.7 | 4R7 | 10 | 7.96 | 35 | 0.27 | 650 |
| WICC1812-5R6KT | 5.6 | 5R6 | 10 | 7.96 | 30 | 0.30 | 650 |
| WICC1812-6R8KT | 6.8 | 6R8 | 10 | 7.96 | 28 | 0.35 | 600 |
| WICC1812-8R2KT | 8.2 | 8R2 | 10 | 7.96 | 25 | 0.40 | 600 |
| WICC1812-100KT | 10.0 | 100 | 10 | 2.52 | 22 | 0.50 | 550 |
| WICC1812-120KT | 12.0 | 120 | 10 | 2.52 | 21 | 0.60 | 500 |
| WICC1812-150KT | 15.0 | 150 | 10 | 2.52 | 20 | 0.70 | 450 |
| WICC1812-180KT | 18.0 | 180 | 10 | 2.52 | 19 | 0.80 | 400 |
| WICC1812-220KT | 22.0 | 220 | 10 | 2.52 | 18 | 0.90 | 370 |
| WICC1812-270KT | 27.0 | 270 | 10 | 2.52 | 16 | 1.20 | 330 |
| WICC1812-330KT | 33.0 | 330 | 10 | 2.52 | 14 | 1.40 | 300 |
| WICC1812-390KT | 39.0 | 390 | 10 | 2.52 | 12 | 1.60 | 280 |
| WICC1812-470KT | 47.0 | 470 | 10 | 2.52 | 11.5 | 1.90 | 260 |
| WICC1812-560KT | 56.0 | 560 | 10 | 2.52 | 11 | 2.20 | 240 |
| WICC1812-680KT | 68.0 | 680 | 10 | 2.52 | 10 | 2.60 | 220 |
| WICC1812-820KT | 82.0 | 820 | 10 | 2.52 | 9.0 | 3.50 | 200 |
| WICC1812-101KT | 100 | 101 | 20 | 0.796 | 8.0 | 4.00 | 180 |
| WICC1812-121KT | 120 | 121 | 20 | 0.796 | 7.5 | 4.50 | 160 |
| WICC1812-151KT | 150 | 151 | 20 | 0.796 | 7.0 | 6.50 | 140 |
| WICC1812-181KT | 180 | 181 | 20 | 0.796 | 6.5 | 7.50 | 120 |
| WICC1812-221KT | 220 | 221 | 20 | 0.796 | 5.5 | 9.00 | 120 |
| WICC1812-271KT | 270 | 271 | 20 | 0.796 | 5.0 | 11.00 | 100 |
| WICC1812-331KT | 330 | 331 | 20 | 0.796 | 4.0 | 13.00 | 90 |

Inductance and Q are measured with a Q-meter.

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Impedance vs. Frequency Characteristics

