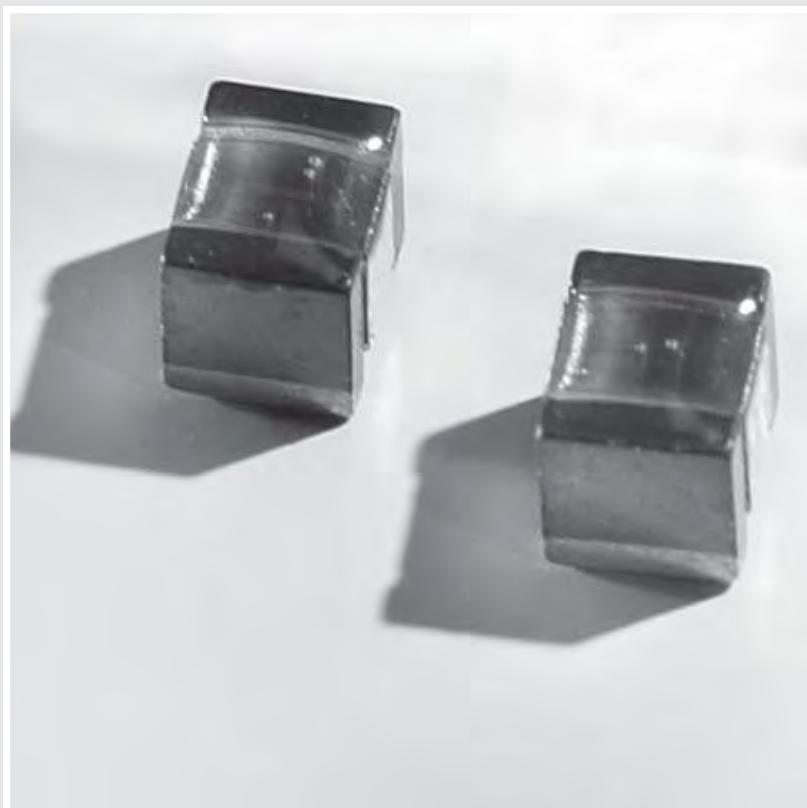


RoHS
2002/95/EC

1008 drahtgewickelt
1008 wire-wound



Allgemeine Eigenschaften und technische Informationen zu den drahtgewickelten SMD-Spulen Bauform 1008 / Baureihe 5501

Die Baugröße 1008 verbindet kleine Abmessungen mit hoher Strombelastbarkeit.

General Characteristics and Technical Information of wire-wound SMD Inductors Size 1008 / Series 5501

Size 1008 combines small dimensions with a high permissible current load.

| | Symbol <i>Symbol</i> | Material des Spulenkerns / Material of the coil core | |
|--|-------------------------|--|-------------------------|
| | | Keramik / Ceramic | Ferrit / Ferrite |
| Induktivität <i>Inductance</i> | L | 10 ... 1200 nH | 1,5 ... 10 µH |
| Toleranz <i>Tolerance</i> | - | 5/10/20 % ¹⁾ | 5/10/20 % ¹⁾ |
| Minimale Güte <i>Minimum Q-factor</i> | Q_{\min} | 35 ... 50 | 20 |
| Eigenresonanzfrequenz <i>Self resonant frequency</i> | $F_{\text{rex, min}}$ | 3000 ... 310 MHz | 240 ... 95 MHz |
| Max. Gleichstromwiderstand <i>Max. DC resistance</i> | $R_{DC, \max}$ | 50 ... 3000 m | 650 ... 8000 m |
| Nennstrom (bez. auf 85 °C) <i>Nominal Current (ref. to 85 °C)</i> | I_N | 1850 ... 170 mA | 370 ... 130 mA |
| Klimakategorie gemäß DIN IEC 68-1 <i>Climatic category acc. to DIN IEC 68-1</i> | - | 55/125/56 | |

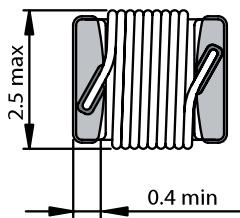
¹⁾ Standard-Toleranzen - engere Toleranzen auf Anfrage
Standard tolerances - tighter tolerances available on request

Technische Informationen Baugröße 1008 / Baureihe 5501 drahtgewickelt:

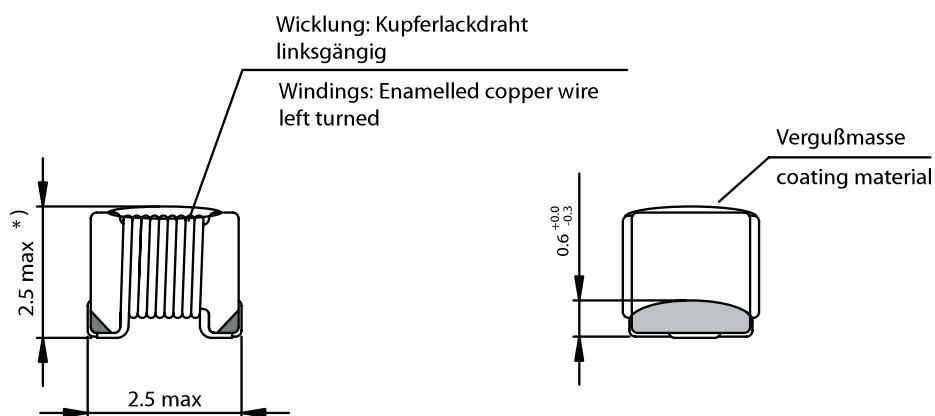
Bauteilabmessungen und Pad-Layout-Empfehlung

Technical Details Size 1008 / Series 5501 wire-wound:

Component Dimensions and Pad Layout
Recommendation

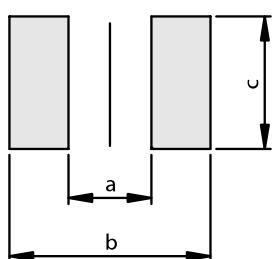


= Metallisierung / Metallization
 = Schweißbereich / Welding area



*) Bauteilhöhe ohne Vergußmasse: max. 2.2 mm
component height without coating material: max. 2.2 mm

Pad-Layout Empfehlung / Recommendation:



| a | b | c |
|-----|-----|-----|
| 1,4 | 3,4 | 2,2 |

Maße / Dimensions (mm)

Bestellhinweise:

Erklärungen des Artikelnummern-Schlüssels

Bezeichnung / Designation
(Baugröße 1008 / Size 1008)

Induktivität L / Inductance L

Multiplikator für L: 10^x
Multiplier for L: 10^x
(Beispiel / example 27 nH)

Induktivitäts-Toleranz
Inductance Tolerance

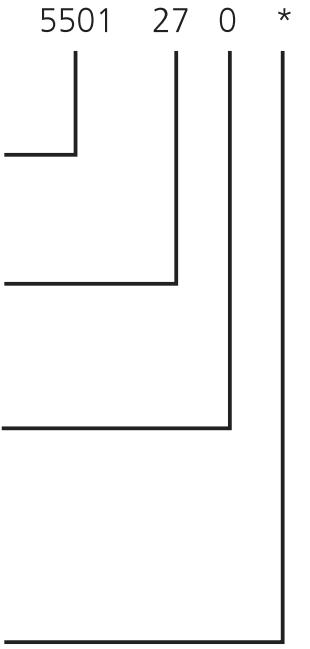
1 ± 20 %

2 ± 10 %

3 ± 5 %

4 ± 2 %

9 ± Sondertoleranz
Special Tolerance



Ordering Instructions:

Explanations of Part Code

5501 27 0 * * *

Verpackungseinheit gegurtet /
packing unit tape & reel

00 = Rollen Ø 180 mm - 1.700 Stück
Reels Ø 180 mm - 1.700 pcs.

03 = Rollen Ø 330 mm - 6.800 Stück
Reels Ø 330 mm - 6.800 pcs.

Lieferform / Delivery Form

2 Standard, gegurtet
Standard, tape & reel

4 vergossen, gegurtet
coated, tape & reel

Bestellbeispiel / Ordering examples:

Chipspule / Chip Coil 1008, 270 nH, Tol. 5 %
vergossen gegurtet (1.700 Stck.)
coated, tape & reel (1.700 pcs.) = **5501 271 34 00**

Chipspule / Chip Coil 1008, 2200 nH, Tol. 10 %
standard gegurtet (1.700 Stck.)
standard, tape & reel (1.700 pcs.) = **5501 222 22 00**

**Elektrische Eigenschaften
Baugröße 1008 / Baureihe 5501
drahtgewickelt:**

**Electrical Parameters
Size 1008 / Series 5501
wire-wound:**

| Artikel-Nr. <i>Order No.</i> | L [nH] | Qmin | fL,Q [MHz] | fres,min [MHz] | RDC,max [mΩ] | IN,max [mA] | Tol. [%] |
|---------------------------------|-----------|------|---------------|-------------------|-----------------|----------------|-------------|
| 5501 100 *** ** | 10 | 35 | 100 | 3000 | 50 | 1850 | 10/20 |
| 5501 120 *** ** | 12 | 35 | 100 | 2000 | 50 | 1650 | 10/20 |
| 5501 180 *** ** | 18 | 40 | 100 | 1700 | 50 | 1550 | 10/20 |
| 5501 220 *** ** | 22 | 45 | 100 | 1500 | 60 | 1450 | 10/20 |
| 5501 270 *** ** | 27 | 40 | 100 | 1300 | 90 | 1300 | 5/10/20 |
| 5501 330 *** ** | 33 | 45 | 100 | 1300 | 60 | 1450 | 10/20 |
| 5501 390 *** ** | 39 | 45 | 100 | 1200 | 75 | 1300 | 5/10/20 |
| 5501 470 *** ** | 47 | 50 | 100 | 1000 | 75 | 1300 | 5/10/20 |
| 5501 560 *** ** | 56 | 50 | 100 | 1000 | 90 | 1260 | 5/10/20 |
| 5501 680 *** ** | 68 | 50 | 100 | 1000 | 90 | 1260 | 5/10/20 |
| 5501 820 *** ** | 82 | 50 | 100 | 950 | 150 | 820 | 5/10/20 |
| 5501 101 *** ** | 100 | 45 | 100 | 900 | 150 | 820 | 5/10/20 |
| 5501 121 *** ** | 120 | 45 | 100 | 900 | 150 | 820 | 5/10/20 |
| 5501 151 *** ** | 150 | 45 | 100 | 825 | 180 | 820 | 5/10/20 |
| 5501 181 *** ** | 180 | 40 | 50 | 800 | 200 | 770 | 5/10/20 |
| 5501 221 *** ** | 220 | 40 | 50 | 700 | 260 | 660 | 5/10/20 |
| 5501 271 *** ** | 270 | 40 | 50 | 650 | 350 | 610 | 5/10/20 |
| 5501 331 *** ** | 330 | 40 | 50 | 570 | 450 | 500 | 5/10/20 |
| 5501 391 *** ** | 390 | 40 | 50 | 520 | 750 | 360 | 5/10/20 |
| 5501 471 *** ** | 470 | 35 | 50 | 490 | 800 | 310 | 5/10/20 |
| 5501 561 *** ** | 560 | 35 | 35 | 440 | 1200 | 260 | 5/10/20 |
| 5501 681 *** ** | 680 | 35 | 35 | 390 | 1900 | 200 | 5/10/20 |
| 5501 821 *** ** | 820 | 35 | 35 | 360 | 2300 | 170 | 5/10/20 |
| 5501 102 *** ** | 1000 | 35 | 35 | 330 | 2700 | 170 | 5/10/20 |
| 5501 122 *** ** | 1200 | 35 | 35 | 310 | 3000 | 170 | 5/10/20 |
| 5501 152 *** ** | 1500 | 20 | 7,9 | 240 | 650 | 370 | 5/10/20 |
| 5501 182 *** ** | 1800 | 20 | 7,9 | 200 | 800 | 320 | 5/10/20 |
| 5501 222 *** ** | 2200 | 20 | 7,9 | 200 | 1150 | 280 | 5/10/20 |
| 5501 272 *** ** | 2700 | 20 | 7,9 | 180 | 1300 | 280 | 5/10/20 |
| 5501 332 *** ** | 3300 | 20 | 7,9 | 170 | 1500 | 250 | 5/10/20 |
| 5501 392 *** ** | 3900 | 20 | 7,9 | 150 | 2100 | 200 | 5/10/20 |
| 5501 472 *** ** | 4700 | 20 | 7,9 | 140 | 2600 | 180 | 5/10/20 |
| 5501 562 *** ** | 5600 | 20 | 7,9 | 130 | 2900 | 180 | 5/10/20 |
| 5501 682 *** ** | 6800 | 20 | 7,9 | 100 | 3700 | 180 | 5/10/20 |
| 5501 822 *** ** | 8200 | 20 | 7,9 | 110 | 5500 | 130 | 5/10/20 |
| 5501 103 *** ** | 10000 | 20 | 7,9 | 95 | 8000 | 130 | 5/10/20 |

Keramik / Ceramics

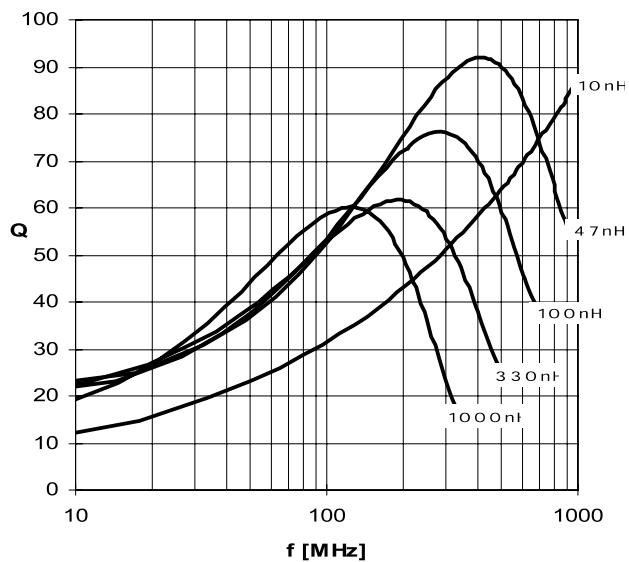
Ferrit / Ferrite

Alle Werte bis 1200 nH auf Keramikkern
Die Werte ab 1500 nH auf Ferritkern
Klimakategorie gemäß DIN IEC 68-1: 55 / 125 / 56
Messgeräte siehe Allgemeinen Teil

All values up to 1200 nH on ceramic core
The values from 1500 nH on ferrite core
Climatic category acc. to DIN IEC 68-1: 55 / 125 / 56
Test Equipment see General Information

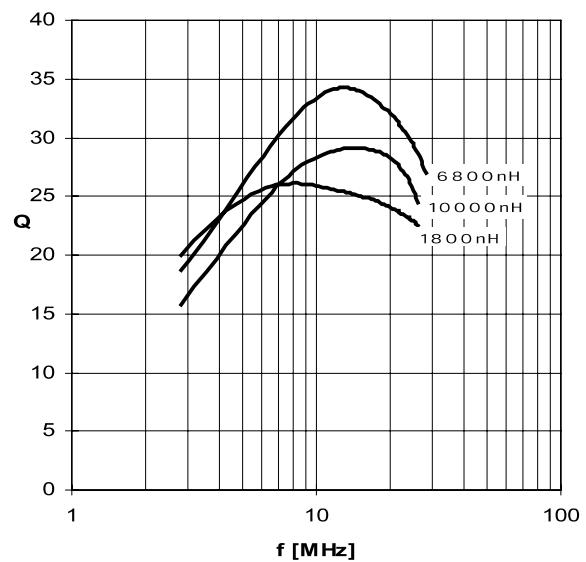
Güte Q über Frequenz f

Spule auf Keramikkörper
Coil on ceramic body



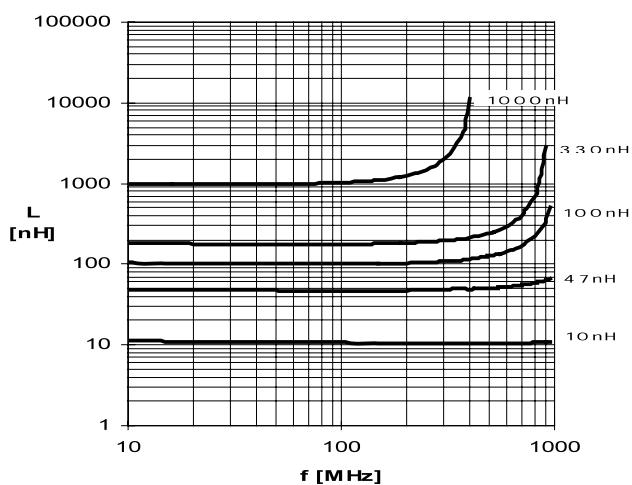
Q-Factor vs. Frequency f

Spule auf Ferritkörper
Coil on ferrite body



Induktivität L über Frequenz f

Spule auf Keramikkörper
Coil on ceramic body



Inductance L vs. Frequency f

Spule auf Ferritkörper
Coil on ferrite body

