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0805 (2012) drahtgewickelt (AgPdPt Metallisierung)
0805 (2012) wire-wound (AgPdPt Metallisation)



Allgemeine Eigenschaften und technische Informationen zu den drahtgewickelten SMD-Spulen Bauform 0805 / Baureihe 5508

Die Baugröße 0805 zeichnet sich durch die Mischung von kleiner Abmessung und hervorragenden elektrischen Werten aus.

General Characteristics and Technical Information of wire-wound SMD Inductors Size 0805 / Series 5508

Size 0805 is characterized by the mixture of small dimensions and extraordinary electrical values.

	Symbol Symbol	Material des Spulenkerns / Material of the coil core	
		Keramik / Ceramic	Ferrit / Ferrite
Induktivität <i>Inductance</i>	L	2,7 ... 820 nH	680 ... 4.700 nH
Toleranz <i>Tolerance</i>	-	2/5/10/20 % ¹⁾	2/5/10/20 % ¹⁾
Minimale Güte <i>Minimum Q-factor</i>	Q _{min}	20 ... 50	20
Eigenresonanzfrequenz <i>Self resonance frequency</i>	f _{res, min}	> 6000 ... 510 MHz	450 ... 150 MHz
Max. Gleichstromwiderstand <i>Max. DC resistance</i>	R _{DC, max}	30 ... 5000 mΩ	500 ... 3800 mΩ
Nennstrom (bez. auf 85 °C) <i>Nominal Current (ref. To 85 °C)</i>	I _N	1000 ... 75 mA ²⁾	250 ... 90 mA ²⁾
Zulässiger Betriebstemperaturbereich <i>permissible operating temperature range</i>	-	- 55 ... 125° C	

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

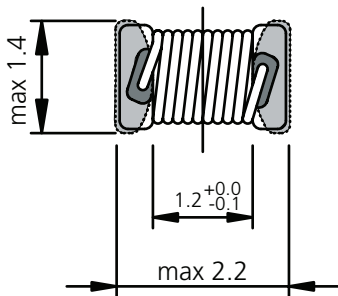
²⁾ Nennstrom (max) bis 85° C Umgebungstemperatur
maximum rated current at ambient temperature



Technische Informationen
Baugröße 0805 / Baureihe 5508
drahtgewickelt:

Bauteilabmessungen und Pad-Layout-Empfehlung

Technical Details
Size 0805 / Series 5508
wire-wound:

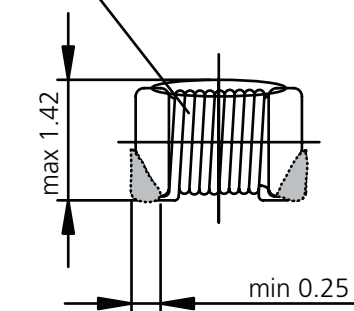
Component Dimensions and Pad Layout Recommendation



-  =Metallisierung / Metallization
-  — =Schweißbereich / Welding area

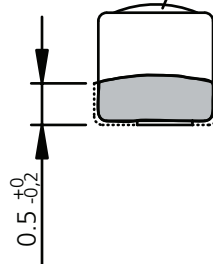
Wicklung: Kupferlackdraht
 linksgängig

Windings: Enamelled copper wire
 left turned

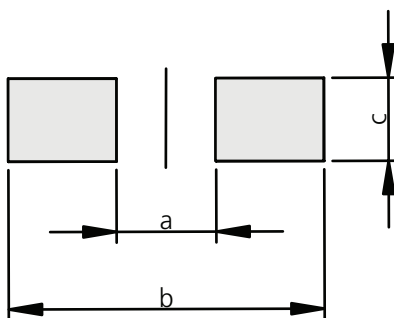


Vergußmasse

Coating material



Layoutempfehlung / Layout recommendation:



a	b	c
1,0...1,2	3,0...3,8	0,9...1,3

Maße / Dimensions (mm)

Bestellhinweise:

Erklärungen des Artikelnummern-Schlüssels

Bezeichnung / Designation
(Baugröße 0805 / Size 0805)

Induktivität L / Inductance L

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

Induktivitäts-Toleranz
Inductance Tolerance

- 1 \pm 20 %
- 2 \pm 10 %
- 3 \pm 5 %
- 4 \pm 2 %
- 9 \pm Sondertoleranz
Special Tolerance

Ordering Instructions:

Explanations of Part Code

5508 27 0 * * **

Verpackungseinheit gegurtet
packing unit tape & reel

00 = Rollen \varnothing 180 mm - 3.000 Stück
Reels \varnothing 180 mm - 3.000 pcs.

03 = Rollen \varnothing 330 mm - 10.000 Stück
Reels \varnothing 330 mm - 10.000 pcs.

05 = Rollen \varnothing 180 mm - 500 Stück
Reels \varnothing 180 mm - 500 pcs.

Lieferform / Delivery Form

4 vergossen, gegurtet
coated, tape & reel

Bestellbeispiel / Ordering examples:

Chipspule / Chip Coil 0805, 270 nH, Tol. 5 %
vergossen gegurtet (3.000 Stück)
coated, tape & reel (3.000 pcs.) = **5508 271 34 00**

Chipspule / Chip Coil 0805, 2200 nH, Tol. 10 %
vergossen gegurtet (3.000 Stück)
coated, tape & reel (3.000 pcs.) = **5508 222 24 00**

Elektrische Eigenschaften
Baugröße 0805 / Baureihe 5508
drahtgewickelt:

Electrical Parameters
Size 0805 / Series 5508
wire-wound:

Artikel-Nr.	L	Q _{min}	Q _{typ}	f _{LQ}	f _{res,min}	R _{DC,max}	I _{N,max}	Tol.
Order No.	[nH]		@ 800 MHz	[MHz]	[MHz]	[mΩ]	[mA]	[%]
5508 020 ** **	2,7	20	50	250	6000	30	1000	20
5508 050 ** **	5,6	25	60	250	6000	40	900	10/20
5508 060 ** **	6,8	30	70	250	5500	50	800	10/20
5508 080 ** **	8,2	35	75	250	5000	60	700	20
5508 100 ** **	10	40	80	250	4500	60	700	5/10/20
5508 120 ** **	12	40	85	250	4000	60	700	5/10/20
5508 150 ** **	15	40	85	250	3500	70	670	5/10/20
5508 180 ** **	18	45	90	250	3300	70	670	5/10/20
5508 220 ** **	22	45	85	250	2600	90	600	5/10/20
5508 270 ** **	27	50	90	250	2500	90	600	5/10/20
5508 330 ** **	33	45	80	250	2150	120	520	5/10/20
5508 390 ** **	39	50	90	250	2050	100	560	5/10/20
5508 470 ** **	47	45	85	200	1900	130	500	2/5/10/20
5508 560 ** **	56	45	60	200	1700	140	480	2/5/10/20
5508 680 ** **	68	45	60	200	1550	190	410	2/5/10/20
5508 820 ** **	82	40	60	150	1430	210	390	2/5/10/20
5508 101 ** **	100	40	50	150	1310	260	350	2/5/10/20
5508 121 ** **	120	40	45	150	1210	440	270	2/5/10/20
5508 151 ** **	150	35	40	100	1120	440	270	2/5/10/20
5508 181 ** **	180	35	30	100	1030	470	260	2/5/10/20
5508 221 ** **	220	35	-	100	950	550	240	2/5/10/20
5508 271 ** **	270	35	-	100	870	1000	180	2/5/10/20
5508 331 ** **	330	35	-	100	800	1000	180	2/5/10/20
5508 391 ** **	390	35	-	100	730	1900	130	2/5/10/20
5508 471 ** **	470	35	-	100	660	2400	115	2/5/10/20
5508 561 ** **	560	35	-	100	600	3200	100	2/5/10/20
5598 681 ** **	680	35	-	100	550	3700	95	5/10
5598 821 ** **	820	35	-	100	510	5000	75	5/10
5508 681 ** **	680	20	-	25,2	450	500	250	2/5/10/20
5508 821 ** **	820	20	-	25,2	400	550	240	2/5/10/20
5508 102 ** **	1000	20	-	7,96	350	500	250	2/5/10/20
5508 122 ** **	1200	20	-	7,96	300	650	220	2/5/10/20
5508 152 ** **	1500	20	-	7,96	250	750	200	2/5/10/20
5508 182 ** **	1800	20	-	7,96	250	850	190	2/5/10/20
5508 222 ** **	2200	20	-	7,96	200	1700	130	2/5/10/20
5508 272 ** **	2700	20	-	7,96	200	2000	120	2/5/10/20
5508 332 ** **	3300	20	-	7,96	200	3300	100	2/5/10/20
5508 392 ** **	3900	20	-	7,96	150	3600	95	2/5/10/20
5508 472 ** **	4700	20	-	7,96	150	3800	90	2/5/10/20

Keramik / Ceramic

Keramik / Ceramic

Ferrit / Ferrite

Ferrit / Ferrite

Alle Werte bis 560 nH auf Keramikern
 Die Werte 680 und 820 nH auf Keramik- und Ferritkern
 Die Werte ab 1000 nH nur auf Ferritkern
 Messgeräte siehe Allgemeine Hinweise

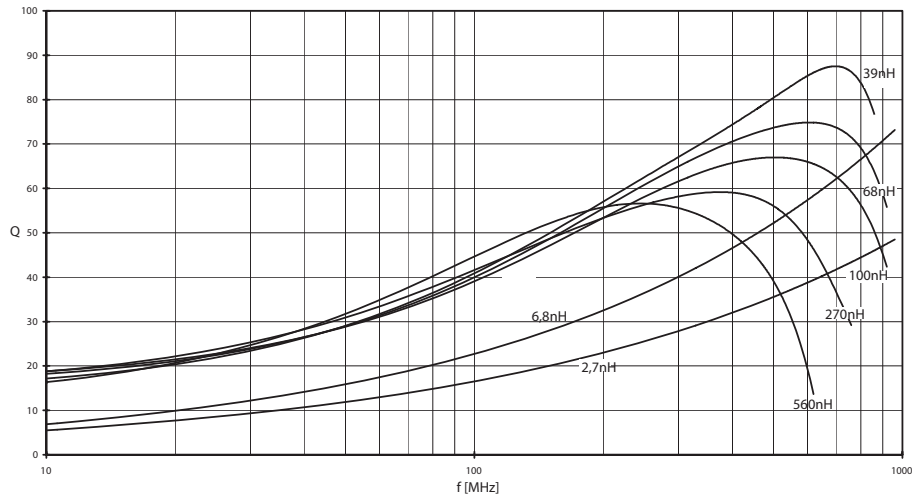
*All values up to 560 nH on ceramic core
 The values 680 and 820 nH either on ceramic or ferrite core
 The values from 1000 nH on ferrite core only
 Test Equipment see General Information*

Güte Q über Frequenz f

Spule auf Keramikkörper

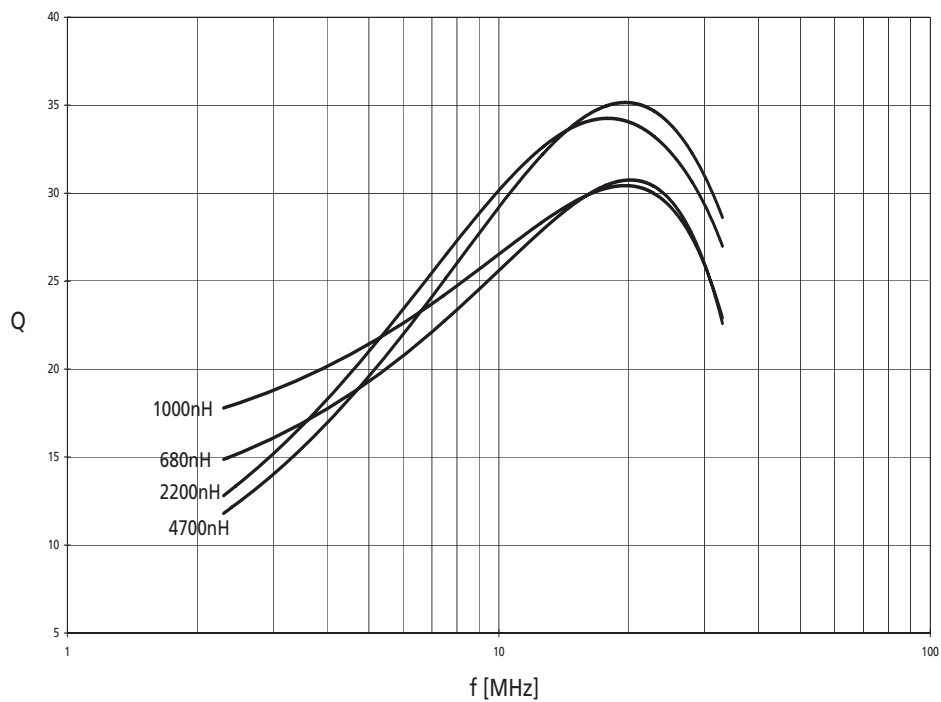
Q-Factor vs. Frequency f

Coil on ceramic body



Spule auf Ferritkörper

Coil on ferrite body

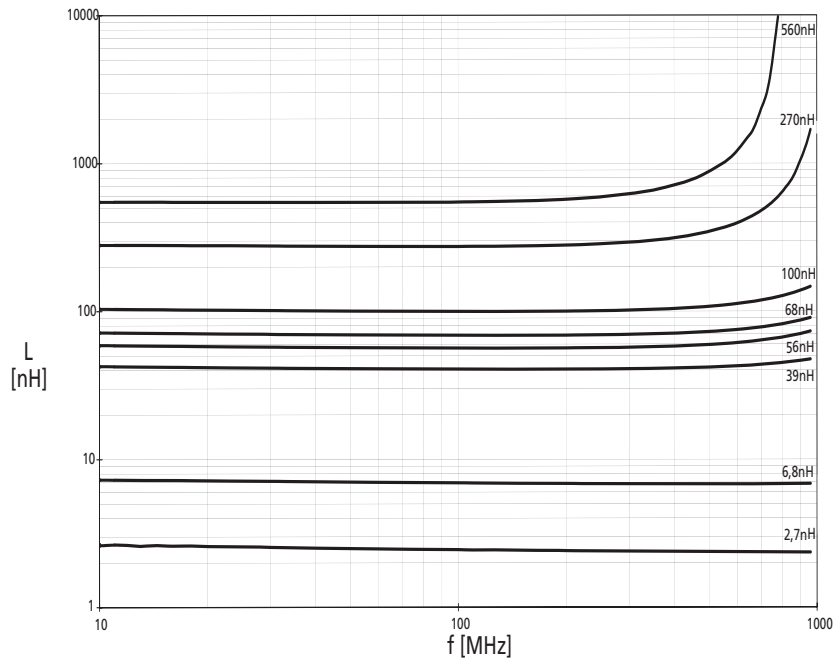


Induktivität L über Frequenz f

Inductance L vs. Frequency f

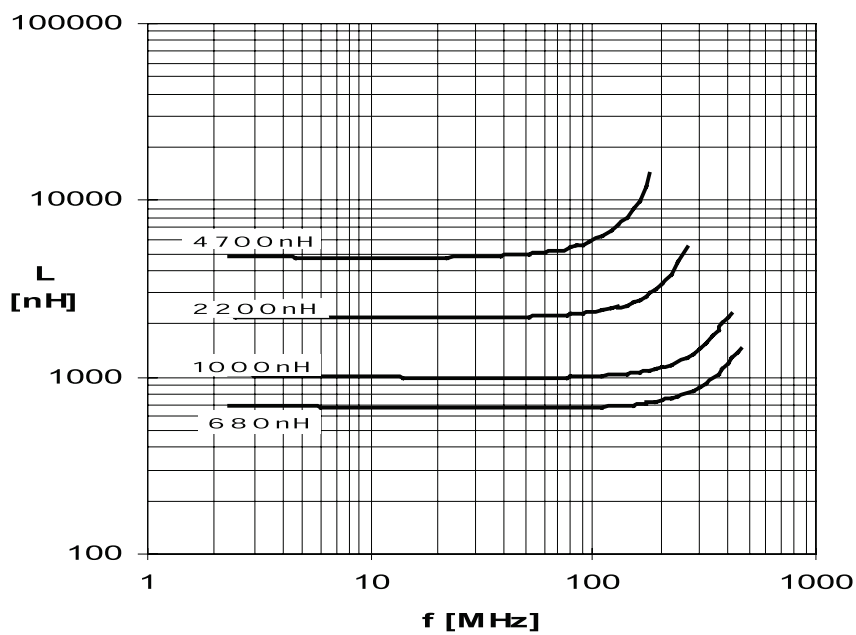
Spule auf Keramikkörper

Coil on ceramic body



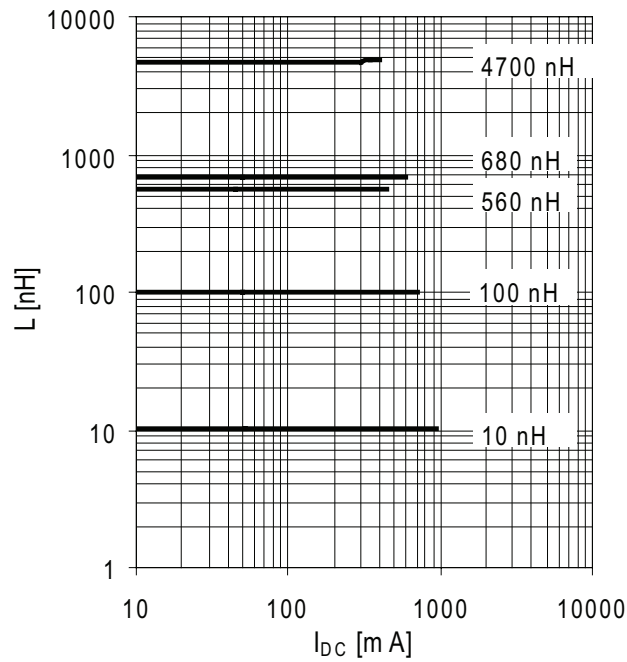
Spule auf Ferritkörper

Coil on ferrite body



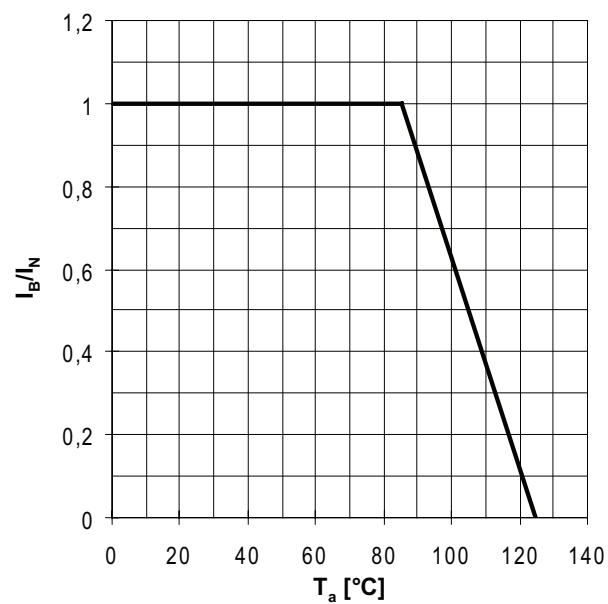
Induktivität L in Abhängigkeit vom Gleichstrom I_{DC}

Inductance L depending on direct current I_{DC}



Strombelastbarkeit $I_B/I_{N,85^\circ C}$ in Abhängigkeit von der Umgebungstemperatur T_a

Current-carrying capacity I_{op}/I_R depending on the ambient temperature T_a



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