Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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RoHS
2002/95/EC

0603 (1608) drahtgewickelt (AgPd/Ni/Sn Metallisierung)
0603 (1608) wire-wound (AgPd/Ni/Sn Metallisation)

Allgemeine Eigenschaften zu den drahtgewickelten SMD-Spulen Bauform 0603 / Baureihe 5406

SUMIDA Components erweitert sein Spektrum der drahtgewickelten Chipspulen der Baugröße 0603. Auf Keramikkörper sind nun Induktivitäten von 1,5 nH bis 470 nH verfügbar.
Diese Induktivitätswerte werden auf SUMIDA Components-Keramikkörpern gewickelt, wodurch besonders hohe Resonanzfrequenzen bzw. Güten spezifiziert werden können. Dadurch eignen sie sich für Applikationen mit besonderen Ansprüchen z.B. für

HF-Technik
Antennenverstärker
Tuner, Basisstationen oder
SAT-Receiver

Zusätzlich bietet SUMIDA Components nun auch SMD-Spulen der Bauform 0603 gewickelt auf einem Ferrit-Kern an. Hier sind Induktivitäten von 470 nH bis 2700 nH verfügbar.

Anfragen nach Sonderinduktivitäten oder -toleranzen werden auf Machbarkeit überprüft.

General Characteristics of Wire-wound SMD Inductors Size 0603 / Series 5406

SUMIDA Components´ extended the programme of existing wire-wound chip inductors size 0603. On ceramic bodies there are a wide range of inductances available from 1,5 nH to 470 nH. All inductance values are wound on SUMIDA Components ceramic bodies which perform extraordinary high resonance frequencies and quality factors. Therefore, they are suited for applications with special requirements as for:

RF technique
Antenna Amplifiers
Tuners, Base Stations or
SAT Receivers

Additional SUMIDA Components offers now the SMD inductors size 0603 wired on a ferrite body. Here are inductances from 470nH to 2700 nH available.

Feasibility of special inductances or tolerances are tested on request.

	Symbol *Symbol*	Material des Spulenkerns *Material of the coil core* Keramik / *Ceramic*	Material des Spulenkerns *Material of the coil core* **Ferrit / *Ferrite*** NEW
Induktivität *Inductance*	L	1,5 ...470 nH	470 ... 2700 nH
Toleranz *Tolerance*	-	2/5/10/20 % [1]	2/5/10/20 % [1]
Minimale Güte *Minimum Q-factor*	Q_{min}	22 ... 45	12
Eigenresonanzfrequenz *Self resonance0 frequency*	$f_{res\ ,\ min}$	> 6000 ... 810 MHz	600 ... 200 MHz
Max. Gleichstromwiderstand *Max. DC resistance*	$R_{DC,\ max}$	25 ... 4000 mΩ	400 ... 200 mΩ
Nennstrom (bez. auf 85 °C) *Nominal Current (ref. To 85 °C)*	I_N	1000 ... 80 mA [2]	460 ... 180 mA [2]
Zulässiger Betriebstemperaturbereich *permissable operating temperature range*	-	- 55 ... 125° C	- 55 ... 125° C

[1] Standard-Toleranzen - engere Toleranzen auf Anfrage
Standard tolerances - tighter tolerances on request

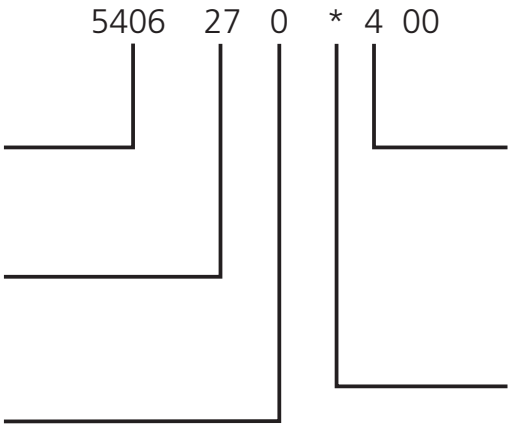
[2] Nennstrom (max) bis 85° C Umgebungstemperatur
maximum rated current at ambient temperature 85° C

Bestellhinweise:

Erklärungen des Artikelnummern-Schlüssels

Ordering Instructions:

Explanations of Part Code



Bezeichnung / *Designation*
Chip-Induktivität / *Inductance*
(Baugröße 0603 / *Size 0603)*

Induktivität L / *Inductance L*

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

Lieferform / *Delivery Form*

4 vergossen, gegurtet auf 8 mm Blistergurt
coated, taped on 8 mm blister tape

Induktivitäts-Toleranz
Inductance Tolerance
1 ± 20 %
2 ± 10 %
3 ± 5 %
4 ± 2 %
9 ± Sondertoleranz
Special Tolerance

Verpackungseinheit 0603: Rollen Ø 180 mm, 4.000 Stück
Packing Unit 0603: Reels Ø 180 mm, 4.000 pcs.

Bestellbeispiel / *Ordering examples:*

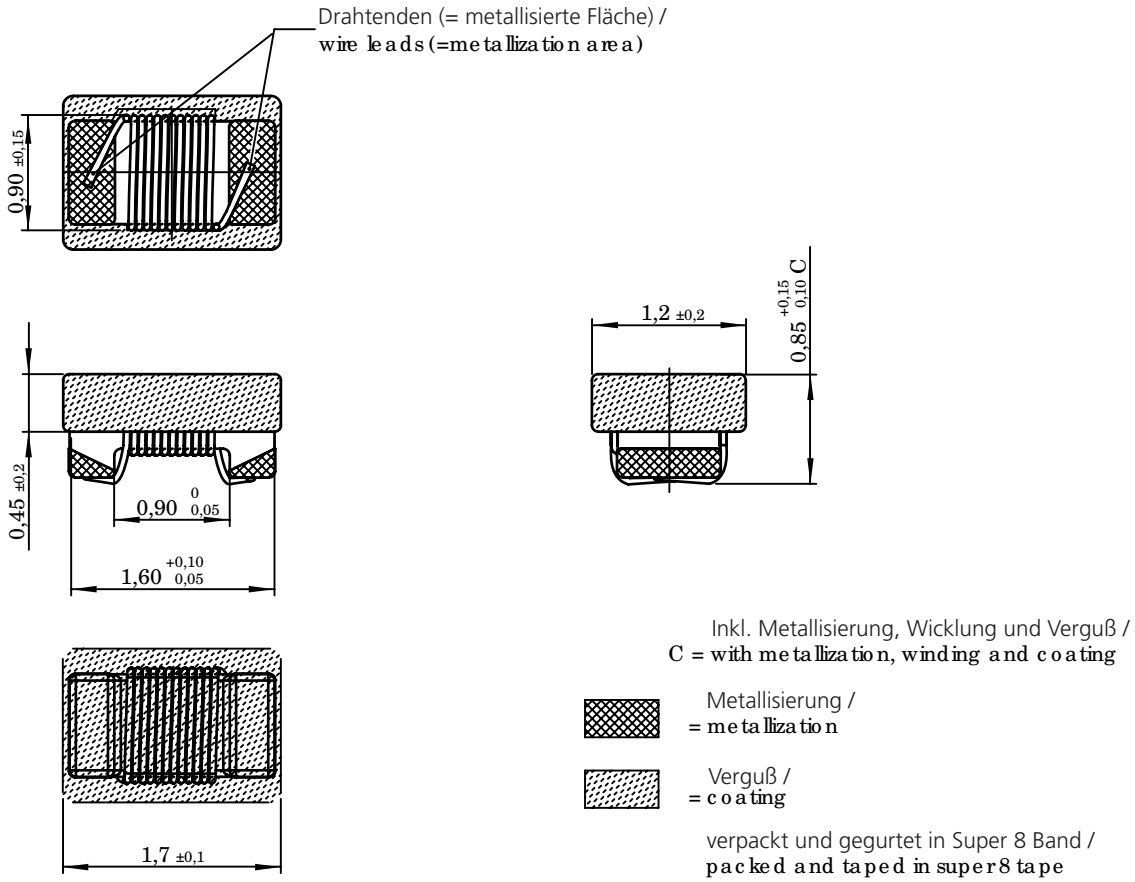
Chipspule / Chip Coil 0603, 270 nH, Tol. 5 %
vergossen gegurtet
coated, tape & reel = **5406 271 34 00**

Technische Informationen Baugröße 0603 / Baureihe 5406 drahtgewickelt:

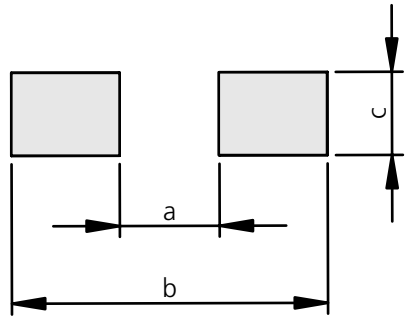
Bauteilabmessungen und Pad-Layout-Empfehlung

Technical Details Size 0603 / Series 5406 wire-wound:

Component Dimensions and Pad Layout Recommendation



Layoutempfehlung / *Layout recommendation:*



a	b	c
0,8....1,0	2,0....2,5	0,7....0,9

Maße / *Dimensions* (mm)

Elektrische Eigenschaften Baugröße 0603 / Baureihe 5406 drahtgewickelt:

Electrical Parameters Size 0603 / Series 5406 wire-wound:

Artikel-Nr.	L	Qmin	Qtyp	fL,Q	fres,min	RDC,max	IN,max	Tol.
Order No.	[nH]		@ 800 MHz	[MHz]	[MHz]	[mΩ]	[mA]	[%]
5406 015 ** **	1,5	22	45	250	6000	25	1000	10/20
5406 018 ** **	1,8	22	35	250	6000	35	900	10/20
5406 033 ** **	3,3	30	55	250	6000	40	800	10/20
5406 036 ** **	3,6	35	50	250	6000	35	900	10/20
5406 039 ** **	3,9	35	50	250	6000	35	900	10/20
5406 047 ** **	4,7	28	45	250	6000	75	620	10/20
5406 056 ** **	5,6	35	60	250	6000	40	840	5/10/20
5406 068 ** **	6,8	40	70	250	5600	35	890	5/10/20
5406 082 ** **	8,2	40	55	250	5500	60	700	5/10/20
5406 087 ** **	8,7	35	70	250	5300	60	700	5/10/20
5406 100 ** **	10	45	80	250	5000	45	780	2/5/10/20
5406 120 ** **	12	40	70	250	4100	90	560	2/5/10/20
5406 150 ** **	15	45	80	250	3300	55	710	2/5/10/20
5406 180 ** **	18	45	75	250	3700	90	560	2/5/10/20
5406 220 ** **	22	45	70	250	3100	135	450	2/5/10/20
5406 270 ** **	27	45	70	250	2900	115	500	2/5/10/20
5406 330 ** **	33	45	70	250	2550	115	490	2/5/10/20
5406 390 ** **	39	45	65	250	2150	120	480	2/5/10/20
5406 470 ** **	47	40	55	200	2050	200	380	2/5/10/20
5406 560 ** **	56	40	50	200	2000	290	310	2/5/10/20
5406 680 ** **	68	40	50	200	1700	360	280	2/5/10/20
5406 820 ** **	82	35	60	150	1700	590	220	2/5/10/20
5406 101 ** **	100	35	50	150	1550	890	180	2/5/10/20
5406 121 ** **	120	35	50	150	1300	1100	160	2/5/10/20
5406 151 ** **	150	30	40	100	1200	1200	150	2/5/10/20
5406 181 ** **	180	30	35	100	1150	1300	140	2/5/10/20
5406 221 ** **	220	30	30	100	1050	1900	120	2/5/10/20
5406 271 ** **	270	30	-	100	990	2100	115	2/5/10/20
5406 331 ** **	330	30	-	100	890	2900	95	2/5/10/20
5406 391 ** **	390	30	-	100	810	4000	80	2/5/10/20
5496 471 ** **	470	30	-	100	700	6200	80	2/5/10/20
5406 471 ** **	470	12	-	7,9	650	400	460	2/5/10/20
5406 561 ** **	560	12	-	7,9	535	410	360	2/5/10/20
5406 681 ** **	680	12	-	7,9	510	580	330	2/5/10/20
5406 821 ** **	820	12	-	7,9	470	780	320	2/5/10/20
5406 102 ** **	1000	12	-	7,9	400	1100	280	2/5/10/20
5406 122 ** **	1200	12	-	7,9	390	1160	230	2/5/10/20
5406 152 ** **	1500	12	-	7,9	340	1580	220	2/5/10/20
5406 182 ** **	1800	12	-	7,9	310	2340	190	2/5/10/20
5406 222 ** **	2200	12	-	7,9	280	3320	185	2/5/10/20
5406 272 ** **	2700	12	-	7,9	260	4000	180	2/5/10/20

Keramik / *Ceramic*

Ferrit / *Ferrite*

NEW

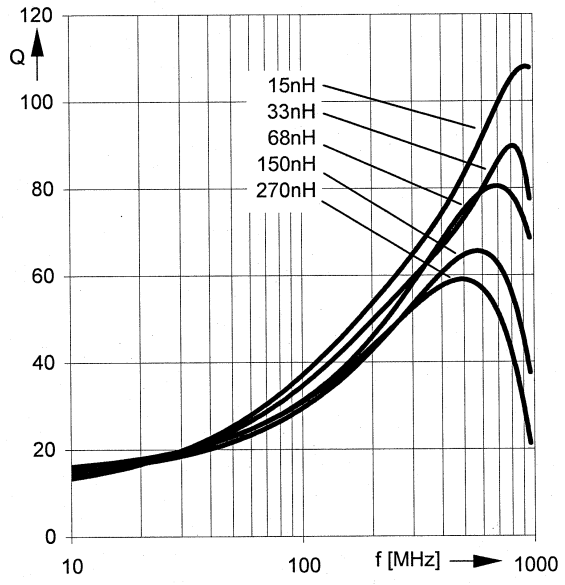
Keramik / *Ceramic*

Ferrit / *Ferrite*

NEW

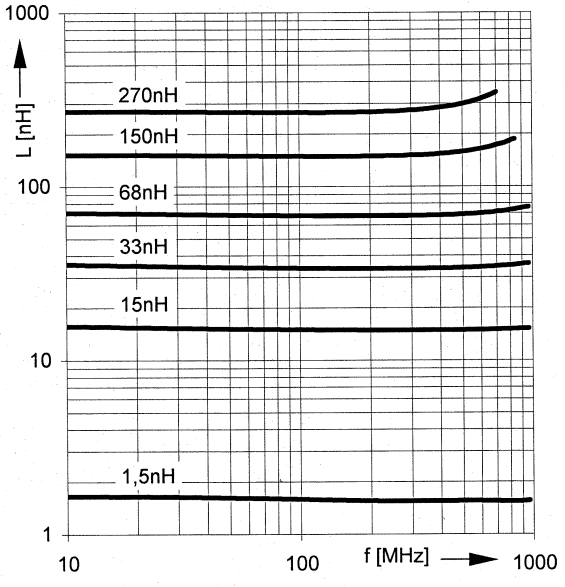
Güte Q über Frequenz f
Q factor versus frequency f

Spule auf Keramikkörper

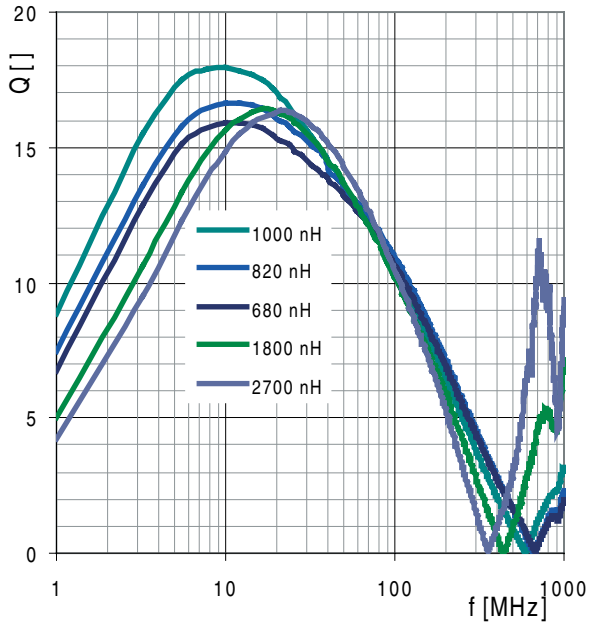


Induktivität L über Frequenz f
Inductance L versus frequency f

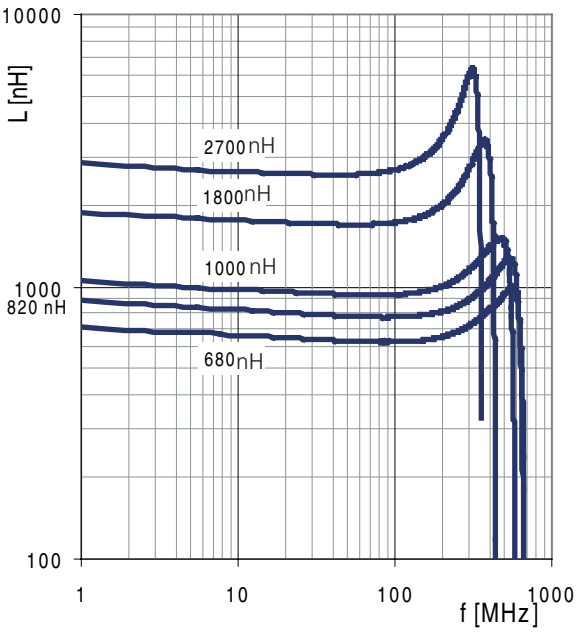
Coil on ceramic body



Spule auf Ferritkörper



Coil on ferrite body



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

Recommended Current-carrying capacity $I_{op}/I_{R,\,85\,°C}$ depending on the ambient temperature T_a