

SURFACE MOUNTING RF AIR CORE INDUCTORS



Features :

- Inductance values from 22 nH up to 150 nH.
- Weight 0.10 – 0.16 g.
- feature high Q and current handling.
- Acrylic top provides a flat surface for pick and place.
- All % values available in 2%,5% tolerance.
- Ag-solder coated leads ensure reliable soldering.



Applications :

- RF Applications.
- RF Circuits.
- Broadband I/O Filtering.
- Impedance Matching/ Tuning.
- Decoupling/Bypassing.

Environmental Data :

- Operating temperature : – 40°C~+125°C, (Including coil's self temperature rise).
- Ambient temperature : – 40°C~+125°C. (referring to Irms) .
- Storage temperature(on tape & reel packing) : – 40°C~+80°C; 75% RH max.
- Full RoHS compliance.

► PRODUCT IDENTIFICATION :

SMDS



Product Type :

SMD
Acrylic Cover
Air core Inductors

610



Product Series Code

22N



Inductance value : [nH]

22N=22nH

G



Inductance Tolerance:

G: ±2%
J : ±5%

R



Termination code :

R=RoHS compliant standard tin-silver-copper alloy (96.5% tin / 3% silver / 0.5% copper) , tin dipping over copper.
T= RoHS compliant standard tin (100% tin), tin electroplating over copper.

S



Packaging code :

S=7" 500 pcs/reel
L=13" 2000 pcs/reel

*Please note that the document is subject to change without notice.
Please check website for latest information.
<https://www.smdcoil.com/> <https://www.smdcoil.cn/>

Technical support : sale@smdcoil.com
Tel : 86 769-87199115/13713453758
Dongguan Naheng Electronics Technology Co.,Ltd.

► ELECTRICAL SPECIFICATION :

Part Number	Inductance nH	Percent tolerance	Test Freq. (MHz)	Q typ	Q min	DCR max (m Ω)	SRF min GHz	Ir max Amps
SMDS610-22N	22nH	5 , 2	150	135	100	4.2	3.2	3.0
SMDS610-27N	27nH	5 , 2	150	135	100	4.0	2.7	3.5
SMDS610-33N	33nH	5 , 2	150	130	100	4.8	2.5	3.0
SMDS610-39N	39nH	5 , 2	150	135	100	4.4	2.1	3.0
SMDS610-47N	47nH	5 , 2	150	135	100	5.6	2.1	3.0
SMDS610-56N	56nH	5 , 2	150	125	100	6.2	1.5	3.0
SMDS610-68N	68nH	5 , 2	150	120	100	8.2	1.5	2.5
SMDS610-82N	82nH	5 , 2	150	120	100	9.4	1.3	2.5
SMDS610-R10	100nH	5 , 2	150	115	100	12.3	1.2	1.7
SMDS610-R12	120nH	5 , 2	150	125	100	17.3	1.1	1.5
SMDS610-R15	150nH	5 , 2	150	145	100	33.0	0.75	1.2

* Custom designs are available upon requested.

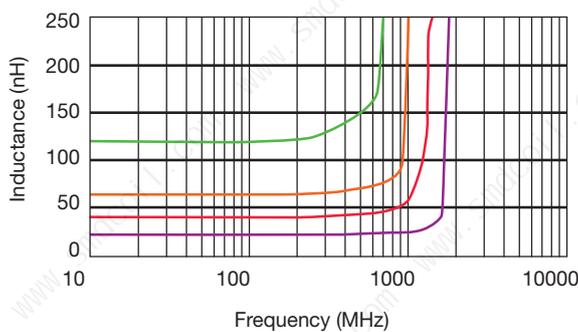
Note :

1. Inductance measured at 150MHz, 0.1Vrms, using HP4287A LCR meter or equivalent with 16193A test fixture.
2. Q measured at 150 MHz using an Agilent/HP 4291A impedance analyzer or equivalent.
3. SRF measured using HP8753 network analyzer and SMD test fixture.
4. RDC: Chroma 16502 or equivalent.
5. Current that causes a 15°C temperature rise from 25°C ambient.
6. Resistance to soldering heat : Max three 40s reflows at 260°C, parts cooled to room temperature between cycles.
7. Temperature Coefficient of Inductance : +5 to +70ppm/°C.
8. Moisture Sensitivity Level (MSL) 1

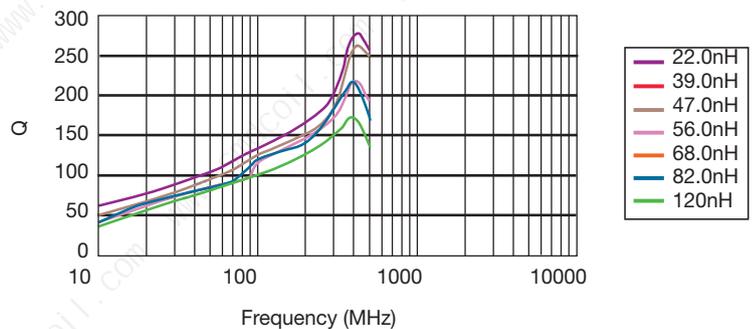
► ELECTRICAL CHARACTERISTIC CURVE :

SMDS610

Inductance vs. Frequency



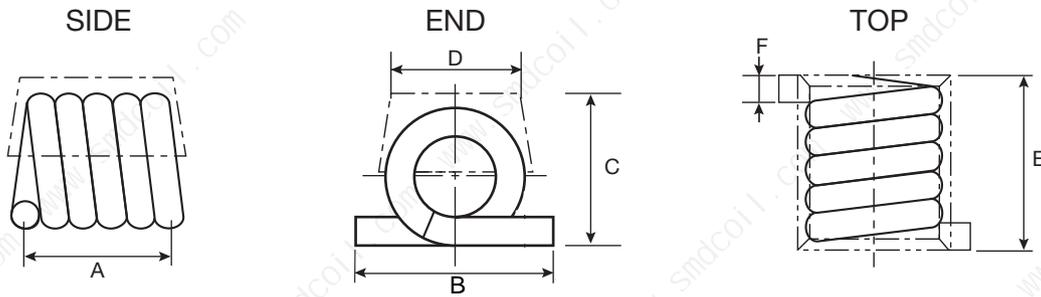
Typical Q vs. Frequency



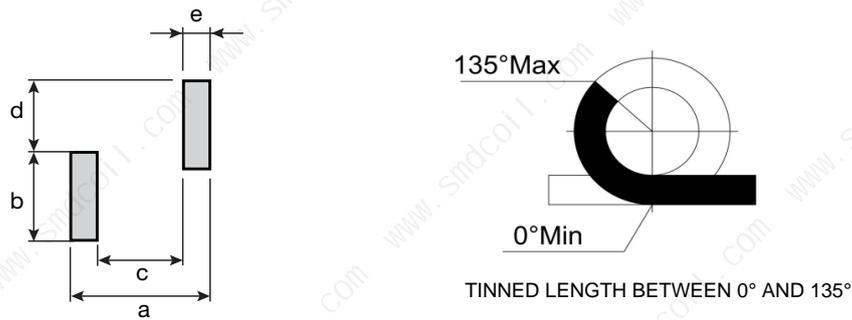
*Please note that the document is subject to change without notice.
Please check website for latest information.
<https://www.smdcoil.com/> <https://www.smdcoil.cn/>

Technical support : sale@smdcoil.com
Tel : 86 769-87199115/13713453758
Dongguan Naheng Electronics Technology Co.,Ltd.

► DIMENSIONS & RECOMMENDED LAND PATTERN : [MM]

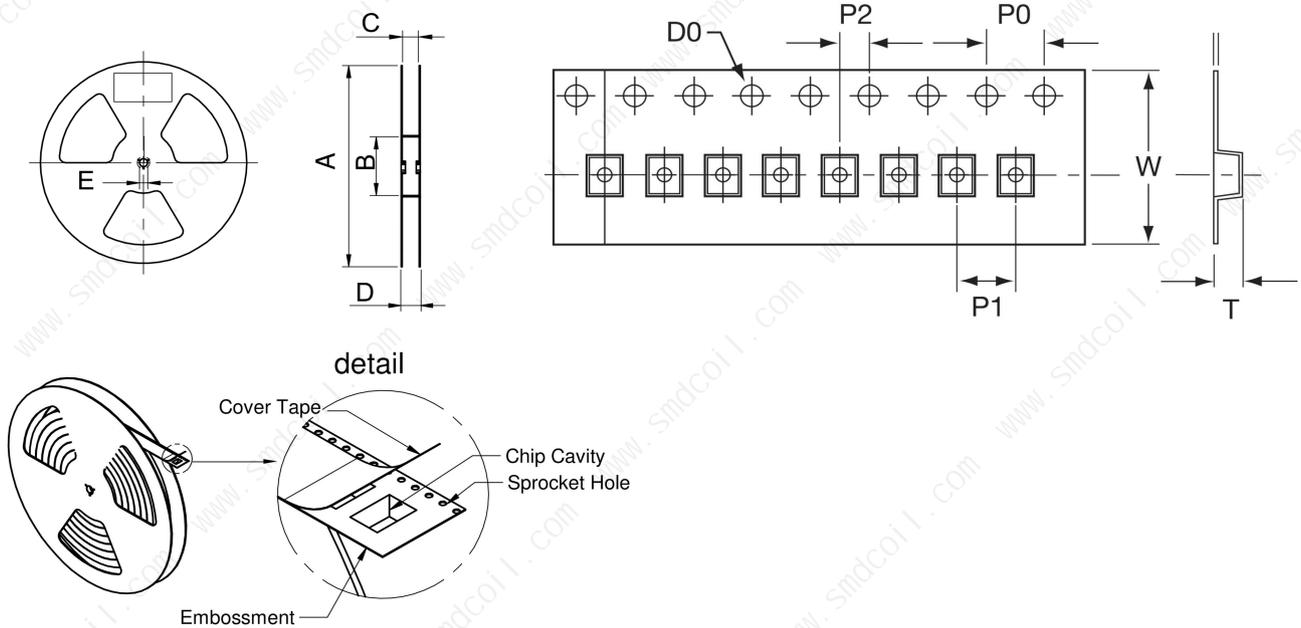


A	B	C	D	E	F
4.32±0.38	6.35 max	4.20 max	3.56±0.25	4.95 max	0.76 max



a	b	c	d	e
5.80	5.16	2.85	2.62	1.48

► PACKAGING DIAGRAM



Parts per reel		Reel dimensions (mm)					Tape dimensions (mm)					
7" (178 mm)	13" (330 mm)	A	B	C	D	E	W	D0	P0	P1	P2	T
500	2000	178/330	60/90	12,4	16.4	13	12	1.5	4	8	2	4.30

*Please note that the document is subject to change without notice.
Please check website for latest information.
<https://www.smdcoil.com/> <https://www.smdcoil.cn/>

Technical support : sale@smdcoil.com
Tel : 86 769-87199115/13713453758
Dongguan Naheng Electronics Technology Co.,Ltd.