

**SURFACE MOUNTING RF AIR CORE INDUCTORS**



**Features :**

- Inductance values from 5.5 nH up to 27.3 nH.
- Excellent Quality Factor - up to 130.
- High self-resonant frequency.
- Ultra-miniature size, high currents up to 4.4 Amps.
- Flat top and bottom for reliable pick and place and mechanical stability.
- All % values available in 2%, 5% tolerance.
- Ag-solder coated leads ensure reliable soldering.



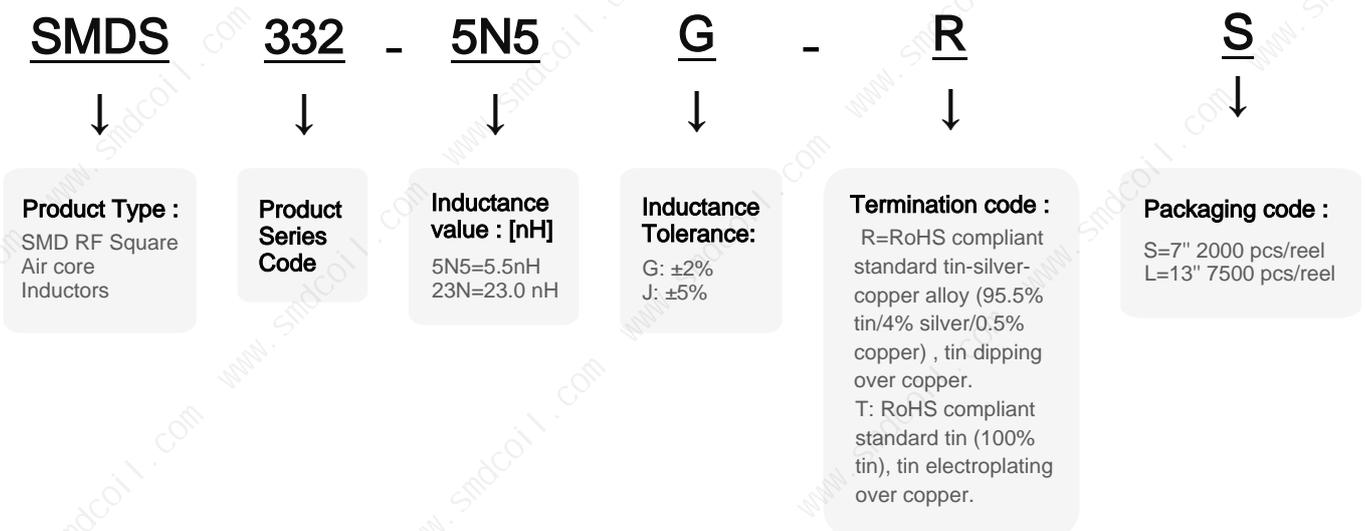
**Applications :**

- Especially for RF applications.
- Ideal for high current applications.
- Broad band filter.
- RF-Decoupling.

**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.

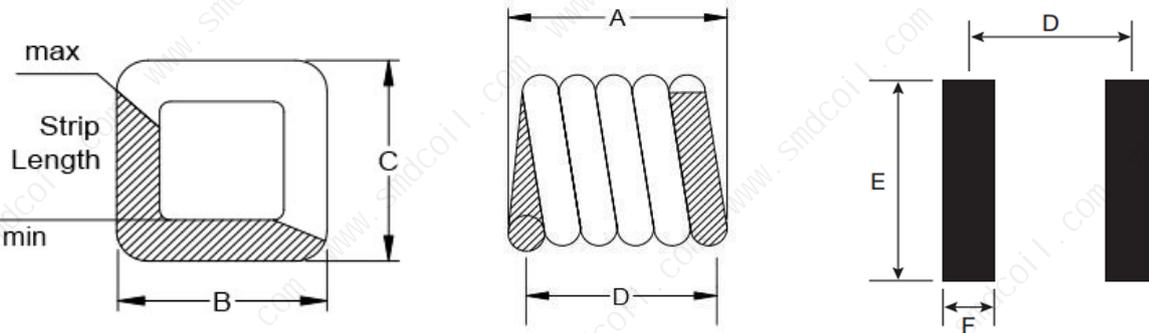
**▶ PRODUCT IDENTIFICATION :**



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Technical support : [sale@smdcoil.com](mailto:sale@smdcoil.com)  
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## ► DIMENSIONS & RECOMMENDED LAND PATTERN : [MM]



Part number	A	B	C	D	E	F	Weight (mg)
SMDS328-5N5	1.346 ±0.102	1.829 ±0.254	1.397 ±0.102	0.96	2.6	0.51	9.9
SMDS328-6N0	1.295 ±0.102	1.829 ±0.254	1.397 ±0.102	1.02	2.6	0.51	8.5
SMDS328-8N9	1.626 ±0.152	1.829 ±0.254	1.397 ±0.102	1.32	2.6	0.51	10.8
SMDS328-12N	1.930 ±0.152	1.829 ±0.254	1.397 ±0.102	1.63	2.6	0.51	13.6
SMDS328-16N	2.286 ±0.152	1.829 ±0.254	1.397 ±0.102	1.96	2.6	0.51	16.1
SMDS328-19N	2.591 ±0.152	1.829 ±0.254	1.397 ±0.102	2.29	2.6	0.51	18.7
SMDS330-6N9	1.295 ±0.102	1.829 ±0.254	1.524 ±0.254	1.02	2.6	0.51	9.1
SMDS330-10N	1.626 ±0.152	1.829 ±0.254	1.524 ±0.254	1.32	2.6	0.51	11.5
SMDS330-11N	1.549 ±0.152	1.829 ±0.254	1.524 ±0.254	1.24	2.6	0.51	11.5
SMDS330-14N	1.930 ±0.152	1.829 ±0.254	1.524 ±0.254	1.63	2.6	0.51	14.0
SMDS330-17N	2.286 ±0.152	1.829 ±0.254	1.524 ±0.254	1.96	2.6	0.51	16.8
SMDS330-22N	2.591 ±0.152	1.829 ±0.254	1.524 ±0.254	2.29	2.6	0.51	19.4
SMDS332-8N1	1.473 ±0.152	2.134 ±0.152	1.829 ±0.203	1.12	2.8	0.64	12.8
SMDS332-12N	1.854 ±0.152	2.134 ±0.152	1.829 ±0.203	1.45	2.8	0.64	16.9
SMDS332-14N	1.549 ±0.152	2.134 ±0.152	1.829 ±0.203	1.24	2.8	0.64	13.5
SMDS332-17N	2.210 ±0.152	2.134 ±0.152	1.829 ±0.203	1.83	2.8	0.64	21.1
SMDS332-22N	2.565 ±0.152	2.134 ±0.152	1.829 ±0.203	2.18	2.8	0.64	24.7
SMDS332-23N	2.235 ±0.152	2.134 ±0.152	1.829 ±0.203	1.90	2.8	0.64	19.2
SMDS332-25N	2.972 ±0.152	2.134 ±0.152	1.829 ±0.203	2.57	2.8	0.64	27.6
SMDS332-27N	2.972 ±0.152	2.134 ±0.152	1.829 ±0.203	2.57	2.8	0.64	28.7

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## ► ELECTRICAL SPECIFICATION :

Part Number	Inductance (nH)	Percent tolerance	Q typ	SRFtyp (GHz)	DCR max (m )	Irms(A)
SMDS328-5N5	5.5	5, 2	60	4.9	3.4	2.9
SMDS328-6N0	6.0	5, 2	64	5.2	6.0	2.9
SMDS328-8N9	8.9	5, 2	90	4.3	7.0	2.9
SMDS328-12N	12.0	5, 2	90	4.8	8.0	2.9
SMDS328-16N	15.7	5, 2	90	4.4	9.0	2.9
SMDS328-19N	19.4	5, 2	90	4.0	10.0	2.9
SMDS330-6N9	6.9	5, 2	100	4.6	6.0	2.7
SMDS330-10N	10.2	5, 2	100	4.0	7.0	2.7
SMDS330-11N	11.2	5, 2	90	3.6	6.3	2.7
SMDS330-14N	13.7	5, 2	100	4.3	8.0	2.7
SMDS330-17N	17.0	5, 2	100	4.0	9.0	2.7
SMDS330-22N	22.0	5, 2	100	3.5	10.0	2.7
SMDS332-8N1	8.1	5, 2	130	5.2	6.0	4.4
SMDS332-12N	12.1	5, 2	130	4.3	7.0	4.4
SMDS332-14N	14.7	5, 2	90	3.0	7.2	4.4
SMDS332-17N	16.6	5, 2	130	3.4	8.0	4.4
SMDS332-22N	21.5	5, 2	130	3.7	9.0	4.4
SMDS332-23N	23.0	5, 2	120	2.6	10.0	4.4
SMDS332-25N	25.0	5, 2	130	2.5	10.0	4.4
SMDS332-27N	27.3	5, 2	130	3.2	10.0	4.4

\* Custom designs are available upon requested.

Note :

1. Inductance measured at 400MHz, 0.1Vrms, 0 A using HP4287A LCR meter or equivalent with 16193A test fixture.
2. Q measured at 400 MHz using an Agilent/HP 4291A impedance analyzer or equivalent.
3. SRF measured using HP8753 network analyzer and SMD test fixture.
4. Current that causes a 20°C temperature rise from 25°C ambient.
5. Electrical specification at 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

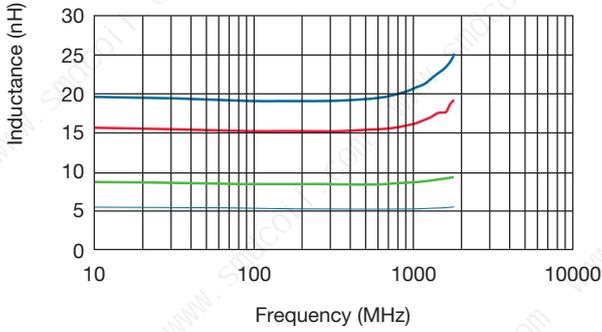
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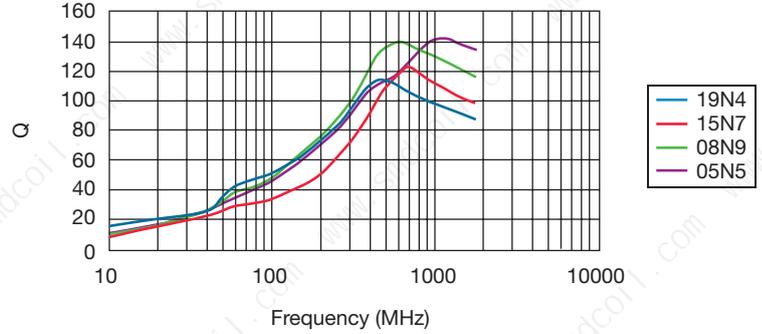
► ELECTRICAL CHARACTERISTIC CURVE :

SMDS328

Inductance vs. Frequency

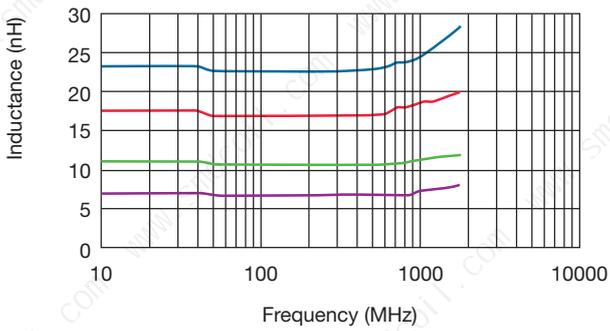


Typical Q vs. Frequency

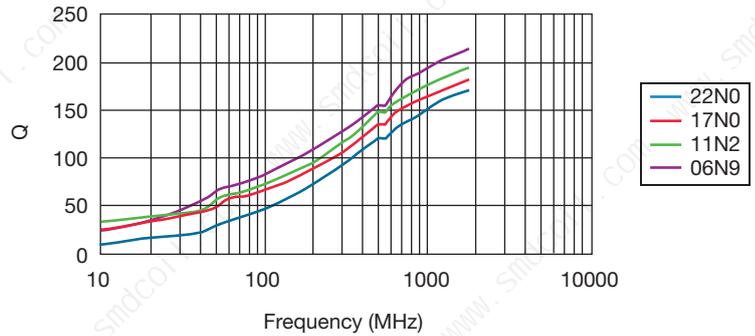


SMDS330

Inductance vs. Frequency

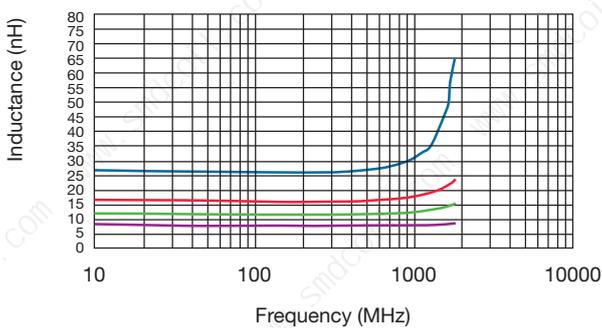


Typical Q vs. Frequency

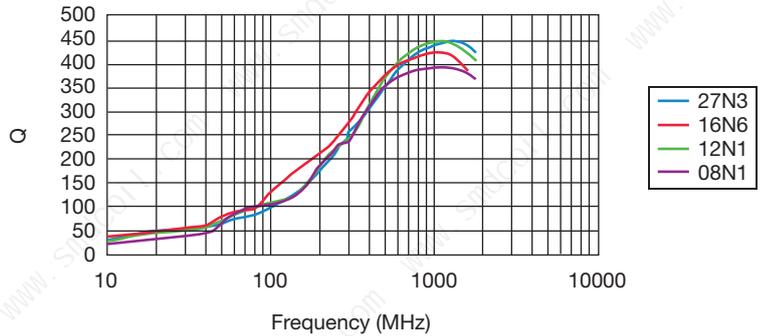


SMDS332

Inductance vs. Frequency



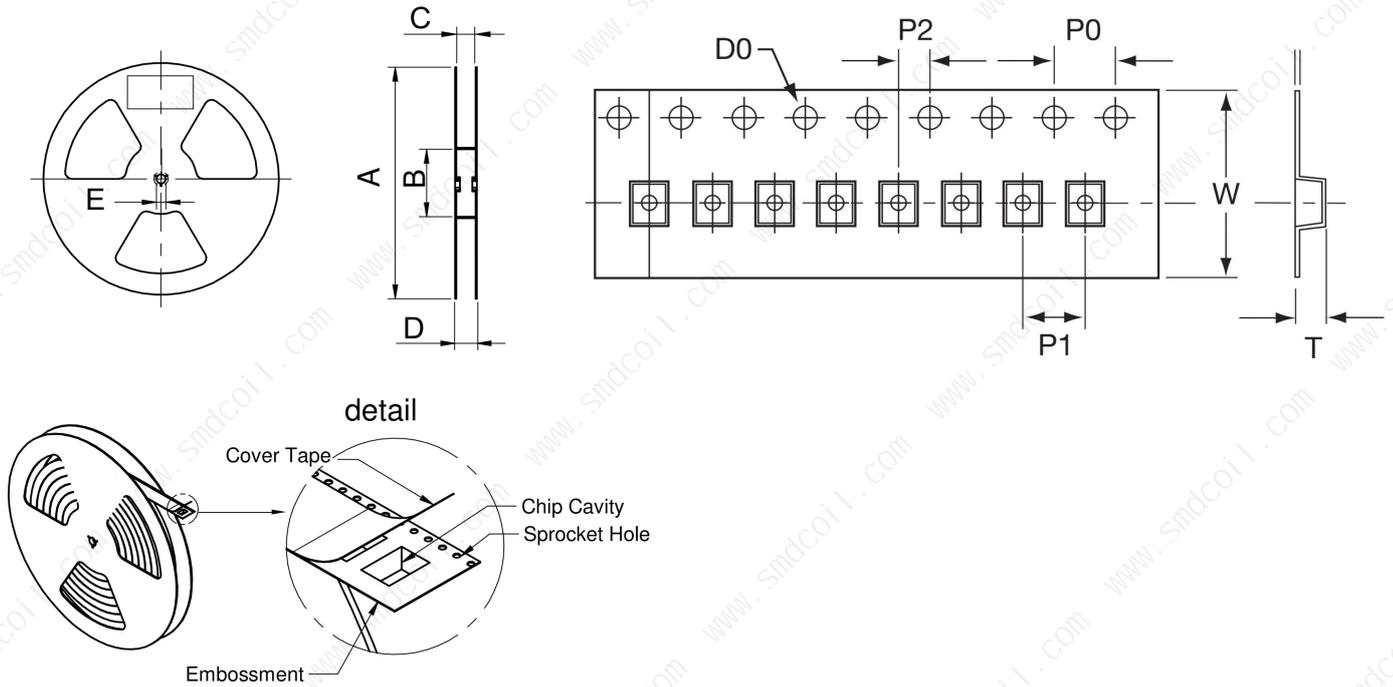
Typical Q vs. Frequency



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## ► PACKAGING DIAGRAM



Parts per reel			Reel dimensions (mm)					Tape dimensions (mm)					
Part number	7" (178 mm)	13" (330 mm)	A	B	C	D	E	W	D0	P0	P1	P2	T
SMDS328-5N5	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,42
SMDS328-6N0	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,42
SMDS328-8N9	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,55
SMDS328-12N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,52
SMDS328-16N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,50
SMDS328-19N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,55
SMDS330-6N9	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,60
SMDS330-10N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,57
SMDS330-11N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,55
SMDS330-14N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,60
SMDS330-17N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,68
SMDS330-22N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,68
SMDS332-8N1	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	2,01
SMDS332-12N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,96
SMDS332-14N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,52
SMDS332-17N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	2,01
SMDS332-22N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,98
SMDS332-23N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	1,98
SMDS332-25N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	2,01
SMDS332-27N	2000	7500	178/330	60/100	12,4	18,4	13	12	1.5	4	4	2	2,01

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