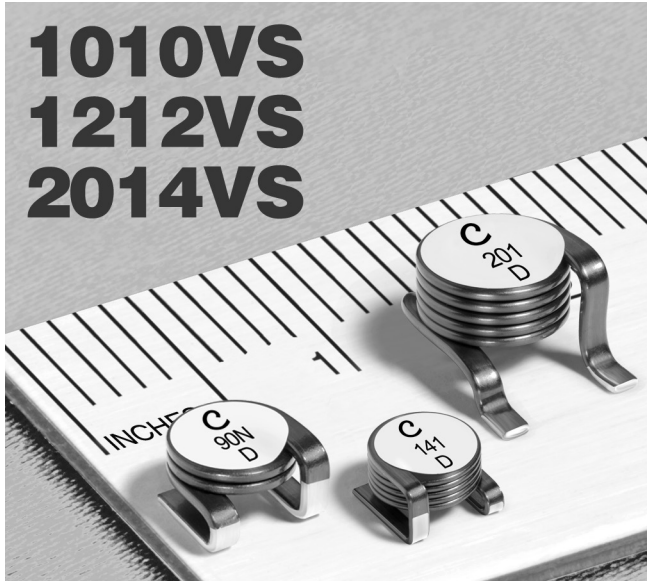




High Frequency, High Current Power Inductors



- Excellent Q factors – up to 230 at 400 MHz!
- Current handling as high as 57 Amps
- Inductance values from 22 to 257 nH

Environmental RoHS compliant, halogen free

Terminations RoHS compliant tin-silver over copper

Ambient temperature -40°C to +125°C with Irms current

Maximum part temperature +155°C (ambient + temp rise).

Storage temperature Component: -40°C to +155°C.
Tape and reel packaging: -40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +5 to +70 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

0.22 per billion hours / 4.545E+09 hours, calculated per Telcordia SR-332

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	Inductance ² ±20% (nH)	Q ³ typ	Q test freq (MHz)	SRF typ ⁴ (MHz)	DCR (mOhm)		Irms (A) ⁵		Weight (g)
					typ	max	20°C rise	40°C rise	
1010VS-23NME_	23.5	95	100	923	1.05	1.20	18.0	26.0	0.49
1010VS-46NME_	46.5	150	100	526	1.50	1.62	17.9	25.5	0.65
1010VS-79NME_	79.0	135	50	386	1.95	2.11	17.8	25.0	0.82
1010VS-111ME_	111	150	50	382	2.53	2.73	15.7	22.0	0.98
1010VS-141ME_	146	140	50	433	3.08	3.33	14.1	19.3	1.23
1212VS-22NME_	22.0	200	100	918	0.48	0.55	40.5	57.0	2.20
1212VS-42NME_	42.0	195	50	557	0.70	0.77	38.0	52.0	2.70
1212VS-66NME_	66.0	200	50	480	0.90	0.99	35.0	48.0	3.20
1212VS-90NME_	90.0	175	50	444	1.10	1.21	33.0	45.0	3.70
1212VS-111ME_	117	165	50	399	1.30	1.43	32.0	44.0	4.20
2014VS-33NME_	33	230	100	620	0.63	0.74	32.5	43.0	1.60
2014VS-66NME_	66	200	50	413	0.90	1.00	31.5	42.5	2.30
2014VS-111ME_	108	210	50	320	1.20	1.34	31.0	42.0	3.10
2014VS-151ME_	155	205	50	296	1.44	1.60	29.4	39.7	3.60
2014VS-201ME_	202	200	50	262	1.70	1.82	26.3	35.8	4.40
2014VS-251ME_	257	200	50	230	1.94	2.15	24.9	34.5	5.00

1. When ordering, please specify **packaging** code:

2014VS-251MEC

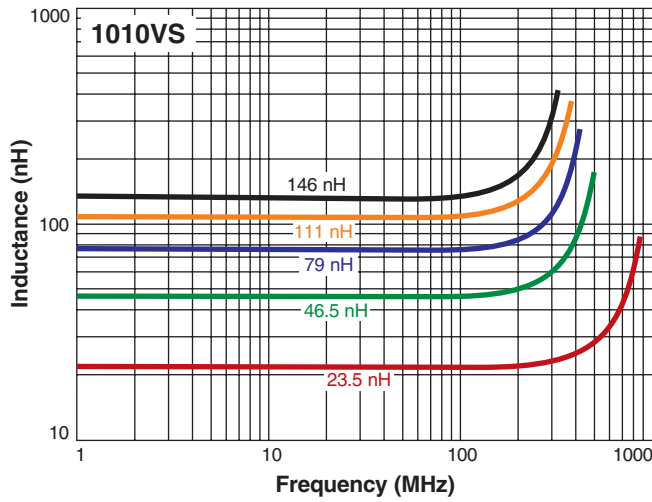
- Packaging:** C = 7" machine-ready reel (Standard for 1010VS.) EIA-481 embossed plastic tape. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).
- D = 13" machine-ready reel (Standard for 1212VS and 2014VS; optional, factory order only, not stocked for 1010VS.) EIA-481 embossed plastic tape.
- B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

2. Inductance measured at 1.0 MHz, 0.1 Vrms, 0 A using an Agilent/HP HP4291A impedance analyzer with an Agilent/HP 16193A test fixture or equivalents.
3. Q measured at the specified frequency using an Agilent/HP 4291A impedance analyzer or equivalent.
4. SRF measured using an Agilent/HP 8753 network analyzer or equivalent and a Coilcraft CCF1199 test fixture
5. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
6. Electrical specifications at 25°C.
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

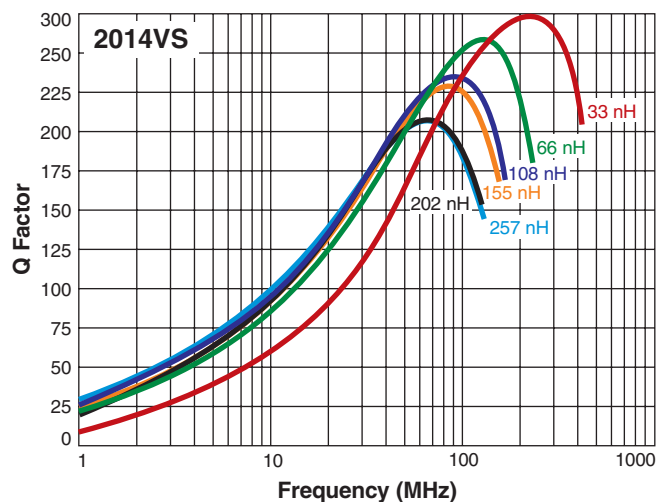
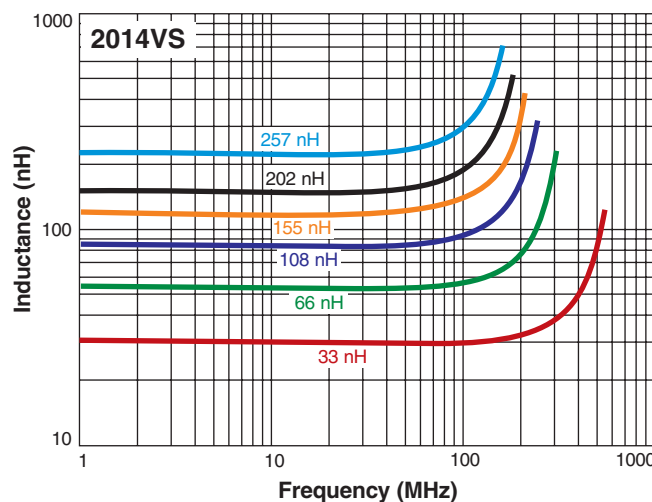
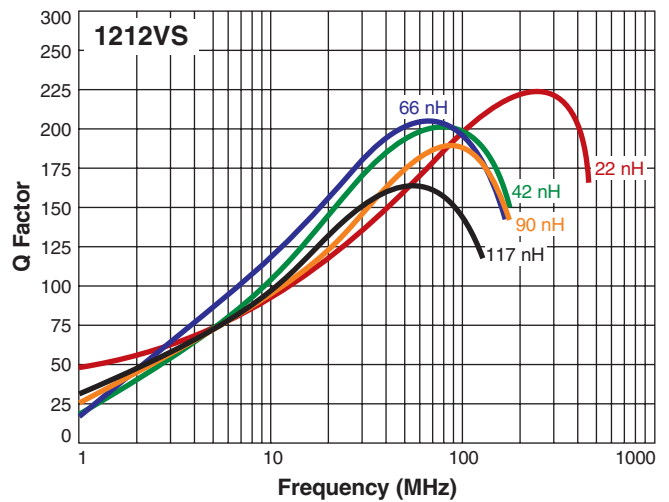
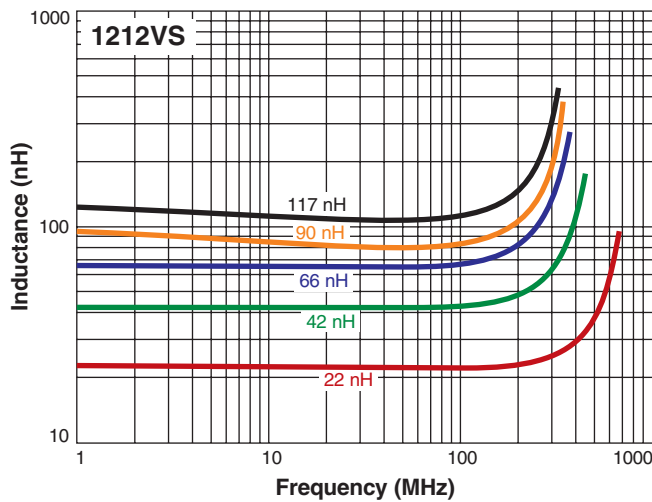
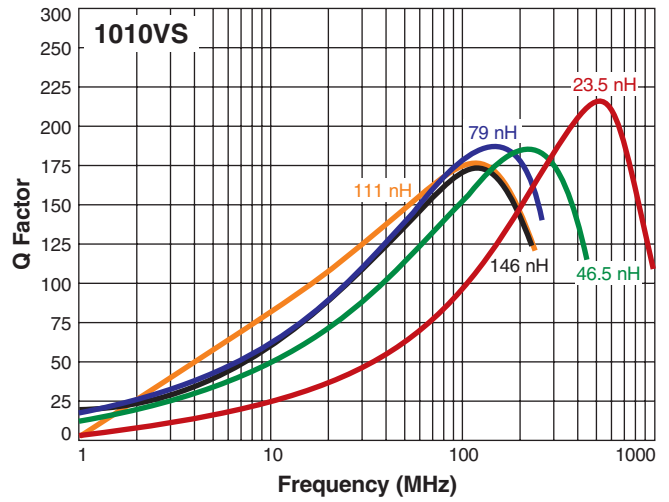


High Frequency, High Current Power Inductors – 1010VS, 1212VS, 2014VS

L vs Frequency



Q vs Frequency



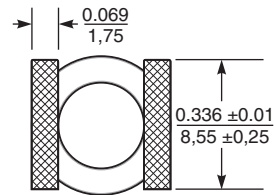
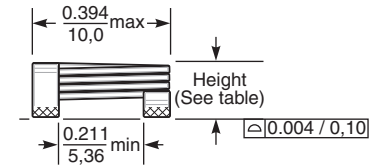
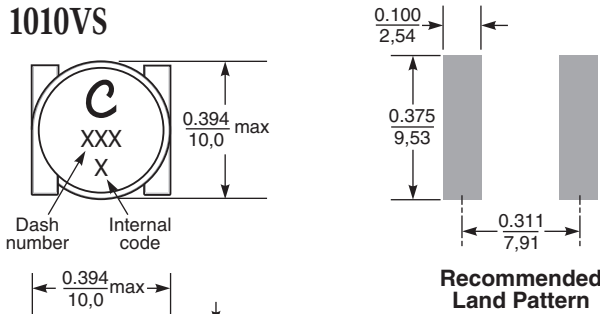
US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 893-2 Revised 05/11/21
 © Coilcraft Inc. 2021
 This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.



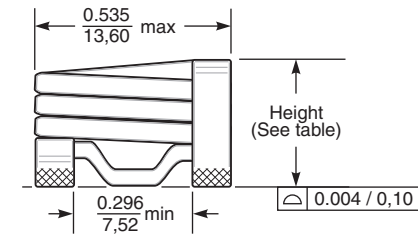
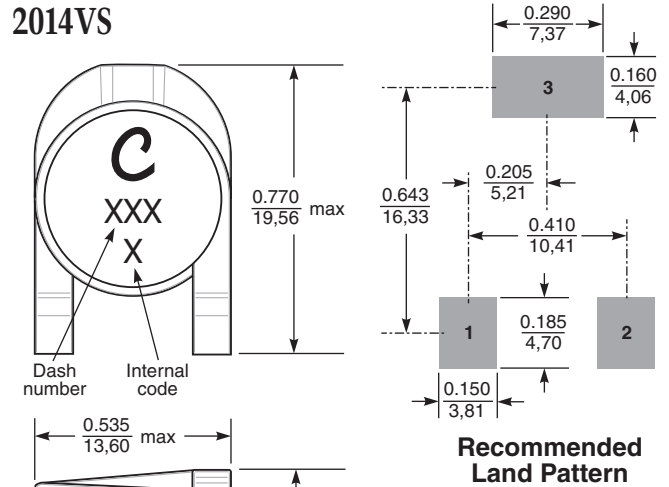
High Frequency, High Current Power Inductors – 1010VS, 1212VS, 2014VS

1010VS

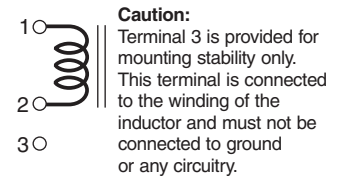
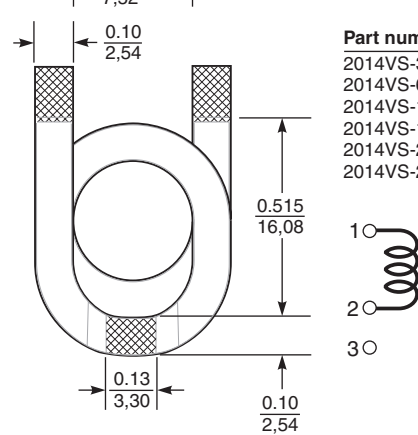


Part number	Height (max)		Weight (g)
	inches	mm	
1010VS-23N	0.142	3,60	0.49
1010VS-46N	0.161	4,10	0.65
1010VS-79N	0.189	4,80	0.82
1010VS-111	0.220	5,60	0.98
1010VS-141	0.240	6,10	1.23

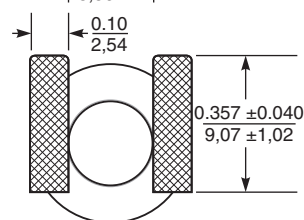
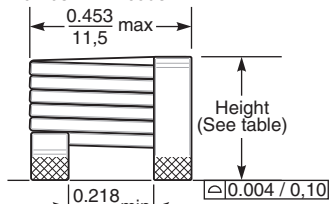
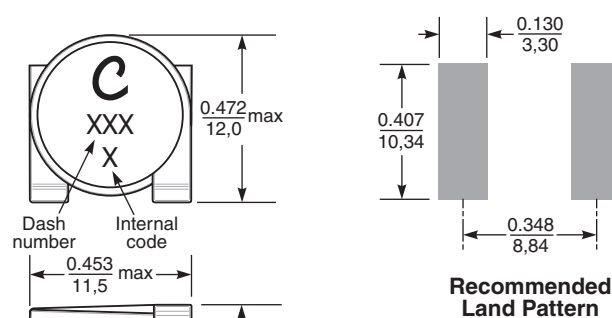
2014VS



Part number	Height (max)		Weight (g)
	inches	mm	
2014VS-33N	0.236	5,99	1.6
2014VS-66N	0.279	7,09	2.3
2014VS-111	0.327	8,31	3.1
2014VS-151	0.362	9,19	3.6
2014VS-201	0.409	10,4	4.4
2014VS-251	0.449	11,4	5.0



1212VS



Part number	Height (max)		Weight (g)
	inches	mm	
1212VS-22N	0.260	6,60	2.2
1212VS-42N	0.299	7,60	2.7
1212VS-66N	0.346	8,80	3.2
1212VS-90N	0.409	10,4	3.7
1212VS-111	0.445	11,3	4.2

Packaging

- 1010VS-23N** 250/7" reel ; 1000/13" reel ; 3.81 mm pocket depth
- 1010VS-46N** 250/7" reel ; 900/13" reel ; 4.32 mm pocket depth
- 1010VS-79N** 200/7" reel ; 800/13" reel ; 5.05 mm pocket depth
- Plastic tape: 24 mm wide, 0.35 mm thick, 16 mm pocket spacing
- 1010VS-111** 175/7" reel ; 700/13" reel ; 5.84 mm pocket depth
- 1010VS-141** 150/7" reel ; 600/13" reel ; 6.35 mm pocket depth
- Plastic tape: 24 mm wide, 0.40 mm thick, 16 mm pocket spacing
- 1212VS-22N** 450/13" reel ; 8.86 mm pocket depth
- 1212VS-42N** 400/13" reel ; 7.87 mm pocket depth
- 1212VS-66N** 350/13" reel ; 9.02 mm pocket depth
- 1212VS-90N** 300/13" reel ; 10.67 mm pocket depth
- 1212VS-111** 250/13" reel ; 11.68 mm pocket depth
- Plastic tape: 24 mm wide, 0.50 mm thick, 20 mm pocket spacing
- 2014VS-33N** 500/13" reel ; 6.22 mm pocket depth
- 2014VS-66N** 450/13" reel ; 7.37 mm pocket depth
- 2014VS-111** 400/13" reel ; 8.56 mm pocket depth
- 2014VS-151** 350/13" reel ; 9.45 mm pocket depth
- 2014VS-201** 300/13" reel ; 10.67 mm pocket depth
- 2014VS-251** 250/13" reel ; 11.68 mm pocket depth
- Plastic tape: 44 mm wide, 0.50 mm thick, 20 mm pocket spacing

All dimensions are in $\frac{\text{inches}}{\text{mm}}$



US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 893-3 Revised 05/11/21
 © Coilcraft Inc. 2021
 This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.