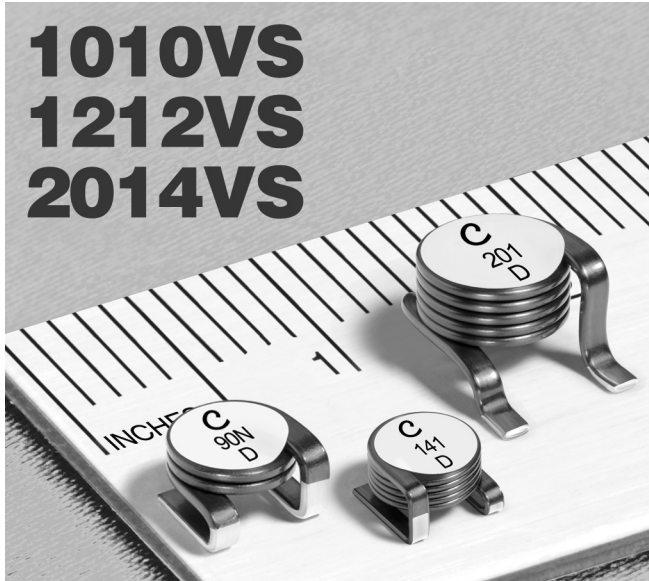




# High Frequency, High Current Power Inductors



- 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)

**Mean Time Between Failures (MTBF)** 1 billion hours

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (nH)	Q <sup>3</sup> typ	Q test freq (MHz)	SRF typ <sup>4</sup> (MHz)	DCR (mOhm)		Irms (A) <sup>5</sup>		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.
  - 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 tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter C for 1010VS; D for 1212VS and 2014VS instead.

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.



www.coilcraft.com

**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 893-1 Revised 10/05/17

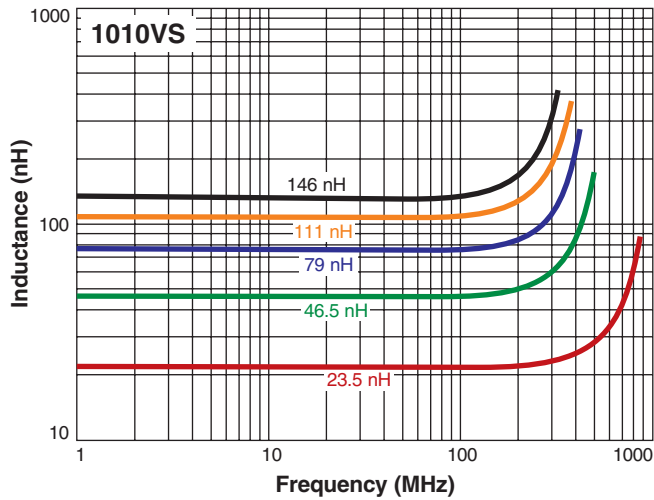
© Coilcraft Inc. 2017

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.

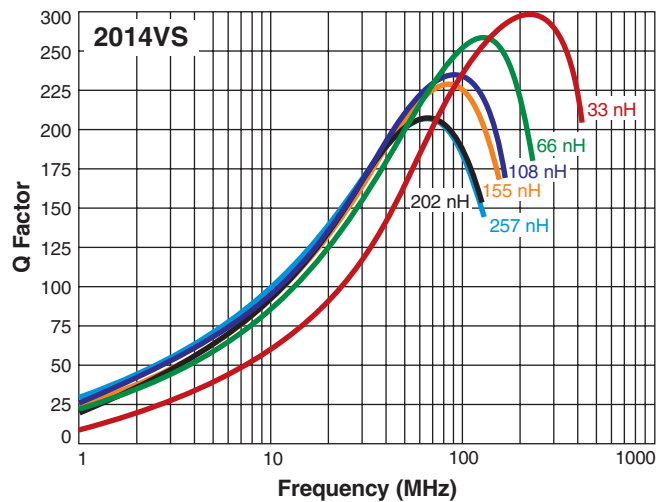
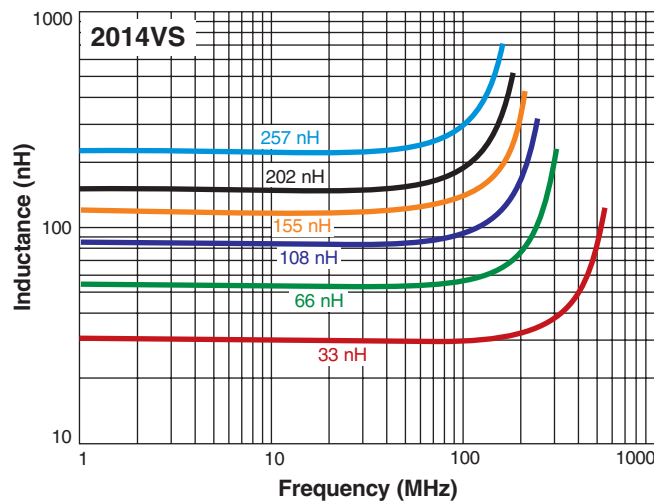
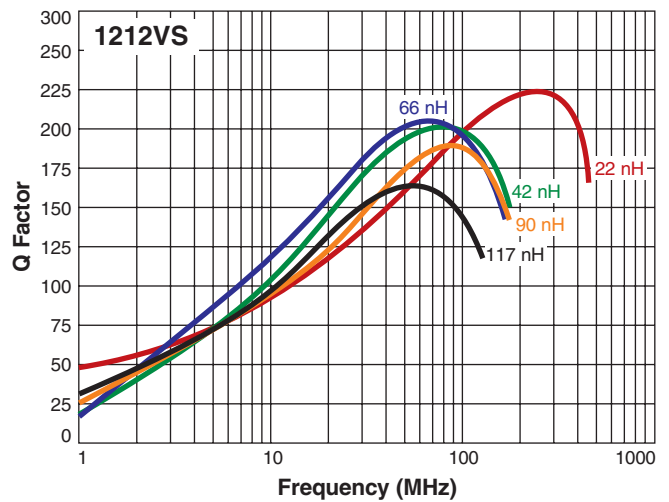
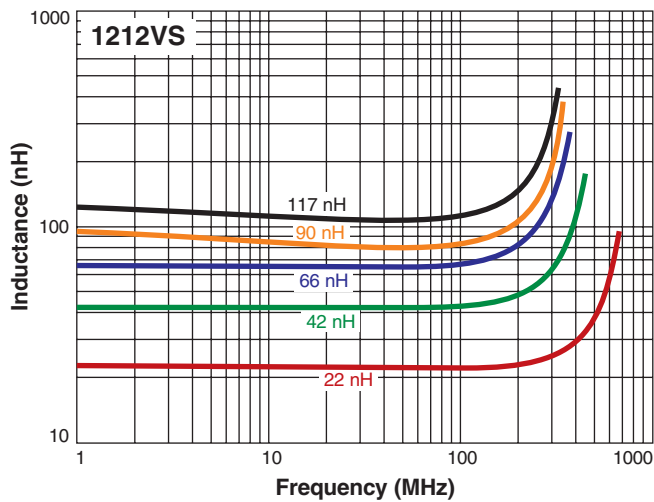
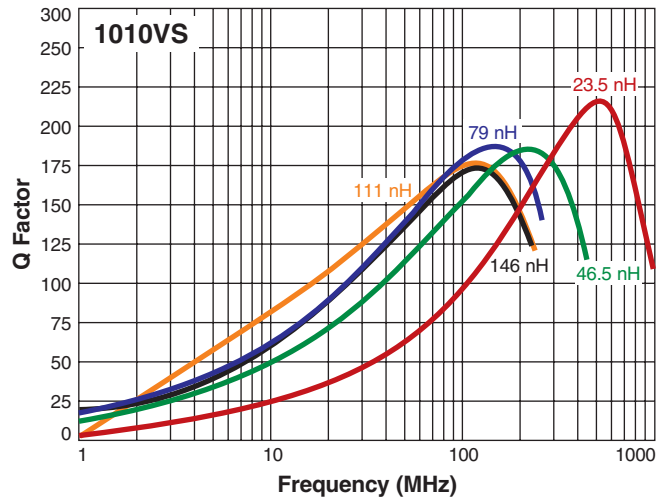


# High Frequency, High Current Power Inductors – 1010VS, 1212VS, 2014VS

L vs Frequency



Q vs Frequency



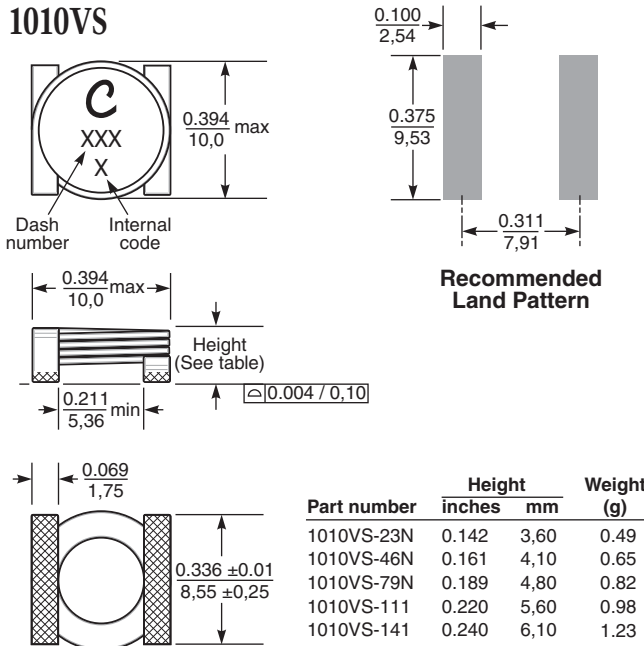
**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

Document 893-2 Revised 10/05/17  
 © Coilcraft Inc. 2017  
 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.

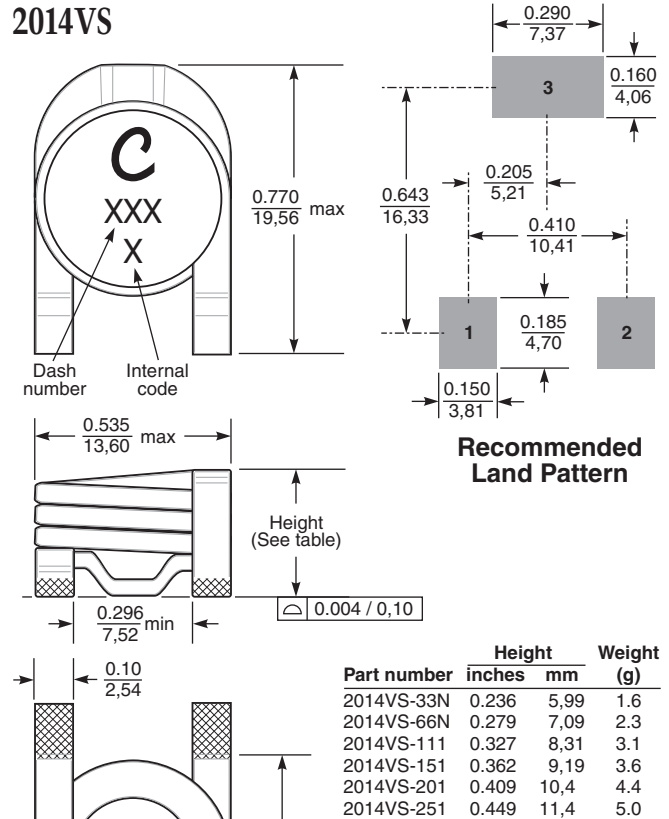


# High Frequency, High Current Power Inductors – 1010VS, 1212VS, 2014VS

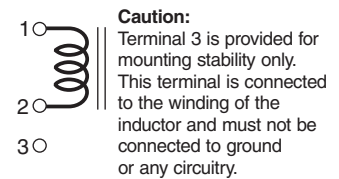
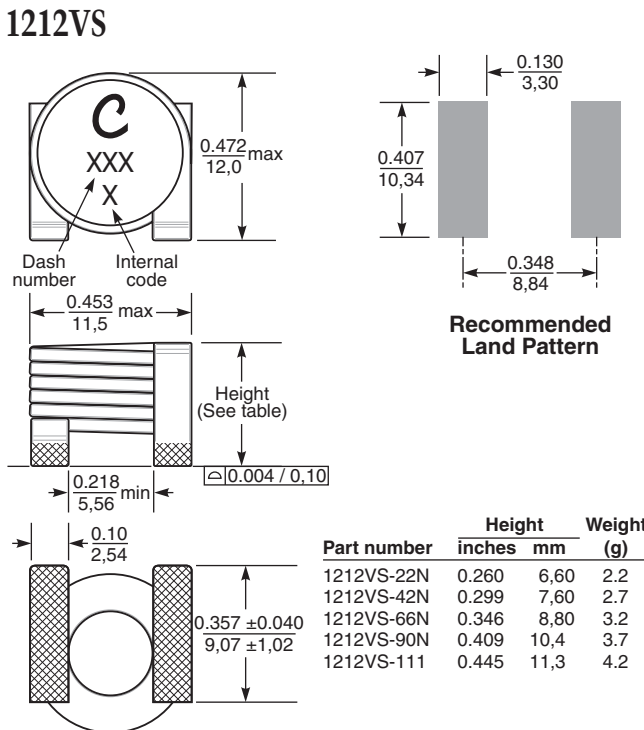
## 1010VS



## 2014VS



## 1212VS



### 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 10/05/17  
 © Coilcraft Inc. 2017  
 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.