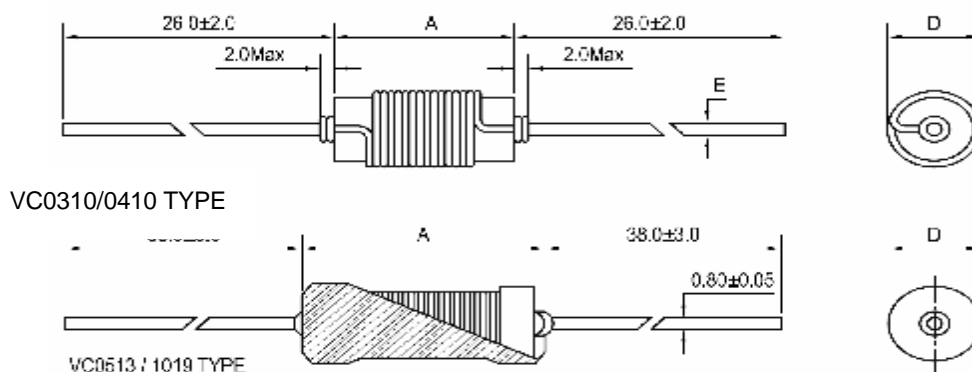


**Shape and size : (Dimensions are in mm)**


3L P/N	A max	D max	E ±0.05
VC0310	10.5	4.5	0.85
VC0410	10.5	5.5	0.80
VC0513	16.5	6.6	0.80
VC1019	23.0	11.5	0.80


**Features :**

- Low cost power inductors.
- High current chokes.
- Wide inductance range.
- High saturation ferrite core.
- Coated with varnish or covered with PVC/UL shrink tubing. VC1019 general coated with UL tube.
- Tape and reel packaging for automatic insertion.

**Ordering information :**

- VC 0410 - 1R0 K - S0 - T5**
- (1) (2) (3) (4) (5) (6)
- (1) Type : **Varnish Coated**.
- (2) Style : **OD= 4 mm , L=10 mm**
- (3) Inductance : **1R0** for **1.0 uH**.
- (4) Inductance Tolerance: "**J**" : ±5% ; "**K**" : ±10% .
- (5) Sleeve : "**S0**": Black PVC sleeve, "**S6**": Blue....  
 "UL": Black UL 125°C Tube; No code: No sleeve.
- (6) Taping Mode: VC0410 **T5** Type; VC0513: **T5X2**  
 VC1019: **T5X3**; No code: Bulk.

**Inductance and rated current ranges :**

• VC0310	1.0 uH ~ 10uH	1.57A ~ 1.2A
• VC0410	0.15uH ~ 56uH	1.85A ~ 300mA
• VC0513	3.9 uH ~ 18mH	1.28A ~ 39mA
• VC1019	3.9 uH ~ 100mH	4.0 A ~ 65mA

**Characteristics :**

- Rated DC Current: The current when temperature of coil increases up to Max.  $\Delta T=40^{\circ}\text{C}$ . ( $T_a=20^{\circ}\text{C}$ ) (VC0410).
- I sat: The current when the inductance becomes 20% lower than its initial value. ( $T_a=20^{\circ}\text{C}$ )
- Suggested rated current: copper wire current density about 8.0 A/mm<sup>2</sup>.
- Operating temperature : -20 °C to 80 °C.

**Test equipment and test setup :**

- L & Q: HP 4285A with HP42851A (Freq. >75kHz).
- L & Q: HP 4284A (Freq.<75kHz).
- DCR : Milli-ohm meter.
- SRF : HM 9461 L-SRF meter.
- Electrical specifications at 25°C.

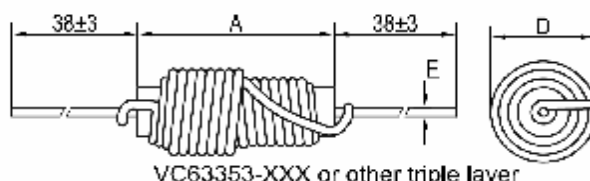
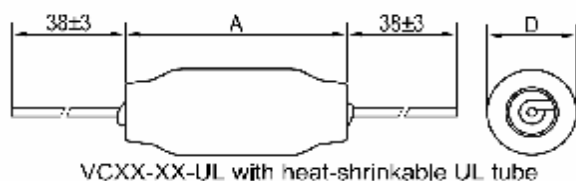
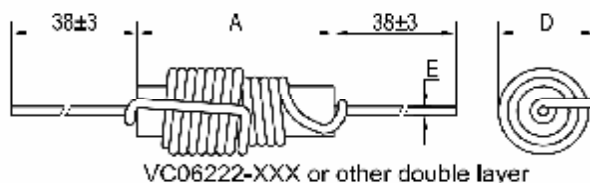
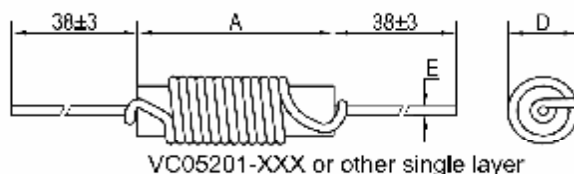
**Applications :**

- TVs and Audio equipment .
- Telecommunication devices .
- RF filters .

Part No.	L ( $\mu$ H)	Q Min.	L. Q Test Freq. (MHz)	SRF (MHz) Min.	DCR (Ohm) Max.	Rated Current (mA) Max.	Core material
VC0310-1R0M	1.0	40	25.2	160	0.017	1800	Ferrite
VC0310-2R2K	2.2	20	7.96	150	0.025	1600	Ferrite
VC0310-4R7K	4.7	25	7.96	135	0.090	1400	Ferrite
VC0310-100K	10	20	7.96	50	0.220	1200	Ferrite
VC0410-R15M	0.15	70	25.2	480	0.018	1850	Ceramic
VC0410-R18M	0.18	70	25.2	450	0.022	1800	Ceramic
VC0410-R22M	0.22	70	25.2	400	0.025	1740	Ceramic
VC0410-R27M	0.27	70	25.5	380	0.029	1680	Ceramic
VC0410-R33M	0.33	70	25.2	300	0.032	1610	Ceramic
VC0410-R39M	0.39	70	25.2	280	0.035	1540	Ceramic
VC0410-R47M	0.47	70	25.2	260	0.039	1430	Ceramic
VC0410-R56M	0.56	70	25.2	210	0.049	1320	Ceramic
VC0410-R68M	0.68	70	25.2	190	0.078	1200	Ceramic
VC0410-R82M	0.82	70	25.2	180	0.090	1130	Ceramic
VC0410-1R0M	1.0	70	25.2	165	0.105	1020	Ceramic
VC0410-1R2K	1.2	55	7.96	150	0.063	1580	Ferrite
VC0410-1R5K	1.5	55	7.96	135	0.071	1500	Ferrite
VC0410-1R8K	1.8	55	7.96	125	0.078	1450	Ferrite
VC0410-2R2K	2.2	55	7.96	115	0.088	1380	Ferrite
VC0410-2R7K	2.7	55	7.96	105	0.098	1320	Ferrite
VC0410-3R3K	3.3	60	7.96	90	0.205	870	Ferrite
VC0410-3R9K	3.9	60	7.96	85	0.225	840	Ferrite
VC0410-4R7K	4.7	60	7.96	80	0.25	800	Ferrite
VC0410-5R6K	5.6	60	7.96	70	0.28	750	Ferrite
VC0410-6R8K	6.8	60	7.96	65	0.31	710	Ferrite
VC0410-8R2K	8.2	55	7.96	60	0.35	680	Ferrite
VC0410-100K	10	55	7.96	40	0.39	640	Ferrite
VC0410-120K	12	65	2.52	40	0.67	450	Ferrite
VC0410-150K	15	65	2.52	40	0.76	430	Ferrite
VC0410-180K	18	70	2.52	36	0.85	410	Ferrite
VC0410-220K	22	70	2.52	33	0.96	390	Ferrite
VC0410-270K	27	70	2.52	31	1.10	360	Ferrite
VC0410-330K	33	65	2.52	29	1.24	345	Ferrite
VC0410-390K	39	65	2.52	26	1.37	330	Ferrite
VC0410-470K	47	60	2.52	23	1.65	315	Ferrite
VC0410-560K	56	55	2.52	20	1.95	300	Ferrite

Part No.	L (uH) @1kHz	DCR (Ohm) Max.	I sat. (DC Amps) Ref.	Suggested Rated Current (AC Amps) Ref.
VC0513 -3R9K-□□	3.9	0.019	7.3	1.28
VC0513 -4R7K-□□	4.7	0.022	6.3	1.28
VC0513 -5R6K-□□	5.6	0.024	5.6	1.28
VC0513 -6R8K-□□	6.8	0.026	5.3	1.28
VC0513 -8R2K-□□	8.2	0.028	4.5	1.28
VC0513 -100K-□□	10	0.033	4.1	1.28
VC0513 -120K-□□	12	0.037	3.6	1.28
VC0513 -150K-□□	15	0.040	3.3	1.28
VC0513 -180K-□□	18	0.044	3.0	1.28
VC0513 -220K-□□	22	0.050	2.7	1.28
VC0513 -270K-□□	27	0.058	2.5	1.28
VC0513 -330K-□□	33	0.075	2.2	1.008
VC0513 -390K-□□	39	0.094	2.0	0.804
VC0513 -470K-□□	47	0.109	1.8	0.804
VC0513 -560K-□□	56	0.140	1.7	0.804
VC0513 -680K-□□	68	0.145	1.5	0.804
VC0513 -820K-□□	82	0.152	1.4	0.804
VC0513 -101K-□□	100	0.208	1.2	0.632
VC0513 -121K-□□	120	0.283	1.1	0.508
VC0513 -151K-□□	150	0.340	1.0	0.508
VC0513 -181K-□□	180	0.362	0.95	0.508
VC0513 -221K-□□	220	0.430	0.86	0.508
VC0513 -271K-□□	270	0.557	0.77	0.400
VC0513 -331K-□□	330	0.665	0.70	0.400
VC0513 -391K-□□	390	0.772	0.64	0.400
VC0513 -471K-□□	470	1.15	0.59	0.315
VC0513 -561K-□□	560	1.27	0.54	0.315
VC0513 -681K-□□	680	1.61	0.49	0.250
VC0513 -821K-□□	820	1.96	0.44	0.200
VC0513 -102K-□□	1000	2.30	0.40	0.200
VC0513 -122K-□□	1200	2.65	0.35	0.200
VC0513 -152K-□□	1500	3.45	0.33	0.158
VC0513 -182K-□□	1800	4.03	0.29	0.158
VC0513 -222K-□□	2200	4.48	0.27	0.158
VC0513 -272K-□□	2700	5.90	0.24	0.125
VC0513 -332K-□□	3300	6.56	0.22	0.125
VC0513 -392K-□□	3900	8.63	0.20	0.100
VC0513 -472K-□□	4700	10.5	0.18	0.100
VC0513 -562K-□□	5600	13.9	0.166	0.082
VC0513 -682K-□□	6800	16.3	0.151	0.082
VC0513 -822K-□□	8200	20.8	0.136	0.065
VC0513 -103K-□□	10000	26.4	0.125	0.050
VC0513 -123K-□□	12000	29.2	0.114	0.050
VC0513 -153K-□□	15000	42.5	0.098	0.039
VC0513 -183K-□□	18000	48.3	0.091	

Part No.	L (uH) @1kHz	DCR (Ohm) Max.	I sat. (DC Amps) Ref.	Suggested Rated Current (AC Amps) Ref.
VC1019 -3R9K - UL	3.9	0.007	15.5	4.0
VC1019 -4R7K - UL	4.7	0.008	13.9	4.0
VC1019 -6R8K - UL	6.8	0.011	11.6	4.0
VC1019 -100K - UL	10	0.017	8.70	4.0
VC1019 -150K - UL	15	0.022	7.34	4.0
VC1019 -220K - UL	22	0.026	6.07	4.0
VC1019 -270K - UL	27	0.027	5.36	4.0
VC1019 -330K - UL	33	0.032	4.82	4.0
VC1019 -390K - UL	39	0.033	4.36	4.0
VC1019 -470K - UL	47	0.035	3.98	4.0
VC1019 -560K - UL	56	0.037	3.66	3.2
VC1019 -680K - UL	68	0.047	3.31	2.5
VC1019 -820K - UL	82	0.060	3.10	2.0
VC1019 -101K - UL	100	0.090	2.79	1.6
VC1019 -121K - UL	120	0.113	2.54	1.6
VC1019 -151K - UL	150	0.129	2.22	1.6
VC1019 -181K - UL	180	0.150	1.98	1.6
VC1019 -221K - UL	220	0.162	1.89	1.6
VC1019 -271K - UL	270	0.208	1.63	1.6
VC1019 -331K - UL	330	0.212	1.51	1.6
VC1019 -391K - UL	390	0.281	1.39	1.6
VC1019 -471K - UL	470	0.380	1.24	1.2
VC1019 -561K - UL	560	0.420	1.17	1.0
VC1019 -681K - UL	680	0.548	1.05	1.0
VC1019 -821K - UL	820	0.655	0.97	0.8
VC1019 -102K - UL	1000	0.844	0.87	0.8
VC1019 -122K - UL	1200	1.04	0.79	0.6
VC1019 -152K - UL	1500	1.18	0.70	0.6
VC1019 -182K - UL	1800	1.56	0.64	0.6
VC1019 -222K - UL	2200	2.00	0.58	0.5
VC1019 -272K - UL	2700	2.06	0.53	0.4
VC1019 -332K - UL	3300	2.53	0.47	0.4
VC1019 -392K - UL	3900	2.75	0.43	0.4
VC1019 -472K - UL	4700	3.19	0.39	0.4
VC1019 -562K - UL	5600	3.92	0.359	0.315
VC1019 -682K - UL	6800	5.69	0.322	0.250
VC1019 -822K - UL	8200	6.32	0.293	0.250
VC1019 -103K - UL	10000	7.30	0.266	0.250
VC1019 -153K - UL	15000	10.5	0.214	0.200
VC1019 -223K - UL	22,000	21.8	0.180	0.125
VC1019 -333K - UL	33,000	25.7	0.146	0.125
VC1019 -473K - UL	47,000	36.1	0.122	0.100
VC1019 -683K - UL	68,000	57.3	0.101	0.082
VC1019 -104K - UL	100,000	89.7	0.081	0.065

**Shape and size: (Dimensions are in mm)**

**Electrical Specification:**
**Dimensions (Unit: mm)**

Part No.	L (uH) @1kHz ± 10%	Suggested Rated Current (AC Amps)	DCR (Ohm) Max.	SRF (MHz) Min.	Dimensions (Unit: mm)		
					A Max.	D Max.	E ±0.05
VC05153-500K-1A-UL	50	1.0	0.120	4.0	20.32	12.06	0.80
<b>VC05154-101K-1A-UL</b>	<b>100</b>	<b>1.0</b>	<b>0.180</b>	<b>2.0</b>	<b>20.32</b>	<b>12.06</b>	<b>0.80</b>
VC06223-251K-1A-UL	250	1.0	0.300	1.0	26.67	12.06	0.80
VC06225-501K-1A-UL	500	1.0	0.500	0.8	26.67	13.97	0.80
<b>VC06256-102K-1A-UL</b>	<b>1000</b>	<b>1.0</b>	<b>0.600</b>	<b>0.5</b>	<b>29.84</b>	<b>13.97</b>	<b>0.80</b>
VC05152-270K-2A-UL	27	2.0	0.085	5.5	20.32	12.70	0.80
VC05153-500K-2A-UL	50	2.0	0.100	4.0	20.32	12.70	0.80
<b>VC06223-101K-2A-UL</b>	<b>100</b>	<b>2.0</b>	<b>0.150</b>	<b>2.0</b>	<b>23.37</b>	<b>12.70</b>	<b>0.80</b>
VC05205-251K-2A-UL	250	2.0	0.250	1.0	23.37	15.24	0.80
VC06226-501K-2A-UL	500	2.0	0.450	0.5	26.67	19.05	0.80
VC05152-5R0K-3A-UL	5	3.0	0.025	5	20.32	12.06	0.80
<b>VC05202-100K-3A-UL</b>	<b>10</b>	<b>3.0</b>	<b>0.035</b>	<b>20</b>	<b>23.37</b>	<b>12.06</b>	<b>0.80</b>
VC05153-270K-3A-UL	27	3.0	0.050	6.0	20.32	13.97	0.80
VC05203-500K-3A-UL	50	3.0	0.065	4.0	23.37	13.97	0.80
<b>VC06253-101K-3A-UL</b>	<b>100</b>	<b>3.0</b>	<b>0.075</b>	<b>2.0</b>	<b>29.84</b>	<b>13.97</b>	<b>0.80</b>
VC06221-5R0K-5A-UL	5	5.0	0.015	50	26.67	12.06	1.00
<b>VC05202-100K-5A-UL</b>	<b>10</b>	<b>5.0</b>	<b>0.025</b>	<b>40</b>	<b>26.67</b>	<b>12.06</b>	<b>1.00</b>
VC06222-270K-5A-UL	27	5.0	0.035	7.0	26.67	17.78	1.00
VC06223-500K-5A-UL	50	5.0	0.050	2.0	26.67	17.78	1.00
<b>VC08303-101K-5A-UL</b>	<b>100</b>	<b>5.0</b>	<b>0.065</b>	<b>1.0</b>	<b>33.02</b>	<b>17.78</b>	<b>1.00</b>
<b>VC05201-100K</b>	<b>10</b>	<b>3.0</b>	<b>0.060</b>		<b>22.00</b>	<b>8.00</b>	<b>0.80</b>
VC63351-400K	40	3.0	0.082		38.00	8.00	0.80
VC63352-680K	68	5.0	0.054		38.00	14.50	1.00
<b>VC63352-101K</b>	<b>100</b>	<b>2.0</b>	<b>0.216</b>		<b>38.00</b>	<b>10.00</b>	<b>0.80</b>
VC63353-121K	120	3.5	0.080		38.00	13.00	1.00
VC63353-251K	250	2.5	0.170		38.00	11.50	0.80
VC63353-501K	500	2.0	0.260		38.00	14.50	0.80
<b>VC63353-102K</b>	<b>1,000</b>	<b>1.0</b>	<b>0.550</b>		<b>38.00</b>	<b>13.00</b>	<b>0.80</b>