

Chip Inductors – 1008CS Series (2520)

These chip inductors are designed for the needs of today's high frequency designer. Their ceramic construction delivers the highest possible SRF's and Q values. The non-magnetic coilform also assures the

utmost in thermal stability, predictability and batch consistency. Coilcraft **Designer's Kit C100** contains samples of all 5% inductance tolerance parts. Kits with 2% tolerance are also available.

Part Number ¹	Inductance ² (nH)	Percent Tolerance ³	Q Min ⁴	SRF Min ⁵ (MHz)	R _{DC} Max ⁶ (Ohms)	I _{DC} Max ⁷ (mA)
1008CS-100X_BC	10 @ 50 MHz	20,10,5	50 @ 500 MHz	4100	.08	1000
1008CS-120X_BC	12 @ 50 MHz	20,10,5	50 @ 500 MHz	3300	.09	1000
1008CS-150X_BC	15 @ 50 MHz	20,10,5	50 @ 500 MHz	2500	.10	1000
1008CS-180X_BC	18 @ 50 MHz	20,10,5,2	50 @ 350 MHz	2500	.11	1000
1008CS-220X_BC	22 @ 50 MHz	20,10,5,2	55 @ 350 MHz	2400	.12	1000
1008CS-270X_BC	27 @ 50 MHz	20,10,5,2	55 @ 350 MHz	1600	.13	1000
1008CS-330X_BC	33 @ 50 MHz	20,10,5,2	60 @ 350 MHz	1600	.14	1000
1008CS-390X_BC	39 @ 50 MHz	20,10,5,2	60 @ 350 MHz	1500	.15	1000
1008CS-470X_BC	47 @ 50 MHz	20,10,5,2	65 @ 350 MHz	1500	.16	1000
1008CS-560X_BC	56 @ 50 MHz	10,5,2	65 @ 350 MHz	1300	.18	1000
1008CS-680X_BC	68 @ 50 MHz	10,5,2	65 @ 350 MHz	1300	.20	1000
1008CS-820X_BC	82 @ 50 MHz	10,5,2	60 @ 350 MHz	1000	.22	1000
1008CS-101X_BC	100 @ 25 MHz	10,5,2,1	60 @ 350 MHz	1000	.56	650
1008CS-121X_BC	120 @ 25 MHz	10,5,2,1	60 @ 350 MHz	950	.63	650
1008CS-151X_BC	150 @ 25 MHz	10,5,2,1	45 @ 100 MHz	850	.70	580
1008CS-181X_BC	180 @ 25 MHz	10,5,2,1	45 @ 100 MHz	750	.77	620
1008CS-221X_BC	220 @ 25 MHz	10,5,2,1	45 @ 100 MHz	700	.84	500
1008CS-271X_BC	270 @ 25 MHz	10,5,2,1	45 @ 100 MHz	600	.91	500
1008CS-331X_BC	330 @ 25 MHz	10,5,2,1	45 @ 100 MHz	570	1.05	450
1008CS-391X_BC	390 @ 25 MHz	10,5,2,1	45 @ 100 MHz	500	1.12	470
1008CS-471X_BC	470 @ 25 MHz	10,5,2,1	45 @ 100 MHz	450	1.19	470
1008CS-561X_BC	560 @ 25 MHz	10,5,2,1	45 @ 100 MHz	415	1.33	400
1008CS-621X_BC	620 @ 25 MHz	10,5,2,1	45 @ 100 MHz	375	1.40	300
1008CS-681X_BC	680 @ 25 MHz	10,5,2,1	45 @ 100 MHz	375	1.47	400
1008CS-751X_BC	750 @ 25 MHz	10,5,2,1	45 @ 100 MHz	360	1.54	360
1008CS-821X_BC	820 @ 25 MHz	10,5,2,1	45 @ 100 MHz	350	1.61	400
1008CS-911X_BC	910 @ 25 MHz	10,5,2,1	35 @ 50 MHz	320	1.68	380
1008CS-102X_BC	1000 @ 25 MHz	10,5,2,1	35 @ 50 MHz	290	1.75	370
1008CS-122X_BC	1200 @ 7.9 MHz	10,5,2	35 @ 50 MHz	250	2.0	310
1008CS-152X_BC	1500 @ 7.9 MHz	10,5,2	28 @ 50 MHz	200	2.3	330
1008CS-182X_BC	1800 @ 7.9 MHz	10,5,2	28 @ 50 MHz	160	2.6	300
1008CS-222X_BC	2200 @ 7.9 MHz	10,5,2	28 @ 50 MHz	160	2.8	280
1008CS-272X_BC	2700 @ 7.9 MHz	10,5,2	22 @ 25 MHz	140	3.2	290
1008CS-332X_BC	3300 @ 7.9 MHz	10,5,2	22 @ 25 MHz	110	3.4	290
1008CS-392X_BC	3900 @ 7.9 MHz	10,5,2	20 @ 25 MHz	100	3.6	260
1008CS-472X_BC	4700 @ 7.9 MHz	10,5,2	20 @ 25 MHz	90	4.0	260

- For environmental data see "Product Specifications" section (Document 121).
- For part marking data see "Color Coding" section (Document 174).

1. When ordering, please specify tolerance and packaging codes:

1008CS-472X_BC

Packaging

- C = EIA RS-481 clear tape and reel (standard).
For orders of less than a full reel, there is a \$25 per reel charge to make them machine-ready.
- B = Bulk. In a carrier tape but without leader or trailer.

Inductance tolerance

- F=1%, G=2%, J=5%, K=10%, M=20%
- Table above shows stock tolerances in bold.
- Other tolerances shown are available on special order.

- Inductance measured using Coilcraft SMD-A fixture in HP4286A impedance analyzer with Coilcraft-provided correlation pieces. For recommended test procedures, contact Coilcraft.
- Tolerances in bold are stocked for immediate shipment.
- Q measured using HP4291A with HP16193 test fixture and on HP8753D with Coilcraft SMD-D test fixture.
- SRF measured using HP8753D network analyzer and Coilcraft SMD-D test fixture.
- R_{DC} measured on Cambridge Technology micro-ohmmeter and Coilcraft CCF 840 test fixture.
- For 15°C rise.
- Operating temperature range -40° to +125°C.

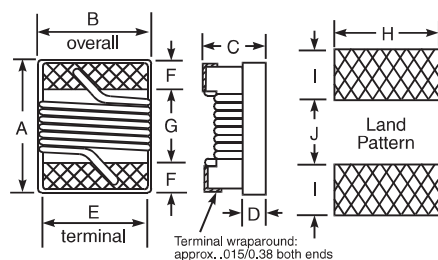
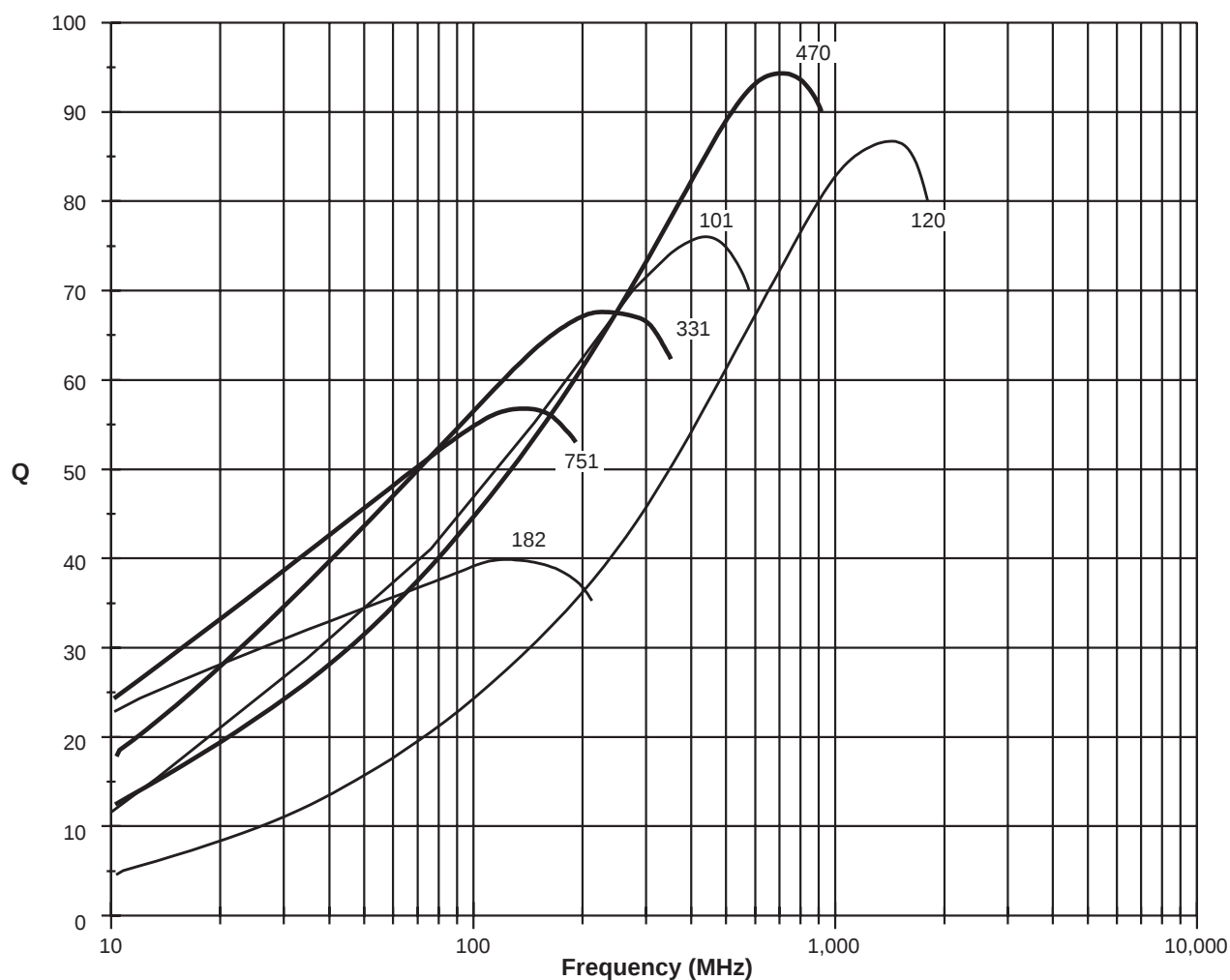
Specifications subject to change without notice. Document 101-1 Revised 8/31/99

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1008CS Series (2520)

S-Parameter files
ON OUR WEB SITE OR CD
PSPICE models
SEE DOC 158

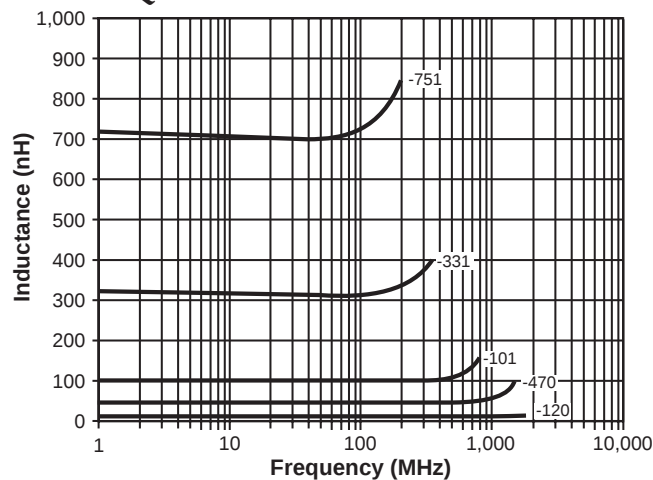
TYPICAL Q vs FREQUENCY



A	B	C	D	E	F	G	H	I	J
Max.	Max.	Max.	Ref.						
.115	.110	.080	.020	.080	.020	.060	.100	.040	.050
2.92	2.79	2.03	0.51	2.03	0.51	1.52	2.54	1.02	1.27

Parts/reel: 7" 2,000; 13" 7,500 Tape width: 8mm
For packaging data see "Tape and Reel Specifications" (Document 173)

L vs FREQUENCY



Coilcraft

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