

Chip Inductors for Critical Applications ST450RAB

With inductance values up to 1000 μH , these are our highest inductance chip inductors. Their ferrite core allows higher current ratings and lower DC resistance.

Part number ¹	Inductance ² (μH)	L test freq (MHz)	Percent tolerance	Q min ³	Q test freq (MHz)	SRF min ⁴ (MHz)	DCR max ⁵ (Ohms)	I _{max} (mA)
ST450RAB123JLZ	12	2.5	5	22	0.79	55	2.0	280
ST450RAB153JLZ	15	2.5	5	22	0.79	45	2.5	260
ST450RAB183JLZ	18	2.5	5	24	0.79	37	2.8	240
ST450RAB223JLZ	22	2.5	5	20	0.79	32	3.2	210
ST450RAB273JLZ	27	2.5	5	24	0.79	27	3.6	200
ST450RAB333JLZ	33	2.5	5	22	0.79	23	4.0	190
ST450RAB393JLZ	39	2.5	5	20	0.79	19	4.5	185
ST450RAB473JLZ	47	2.5	5	24	0.79	16	5.0	180
ST450RAB563JLZ	56	2.5	5	22	0.79	13	5.5	170
ST450RAB683JLZ	68	2.5	5	24	0.79	10	6.0	150
ST450RAB823JLZ	82	2.5	5	24	0.79	9.0	7.0	135
ST450RAB104JLZ	100	2.5	5	24	0.79	8.5	8.0	135
ST450RAB124JLZ	120	0.79	5	25	0.79	8.5	11.5	110
ST450RAB154JLZ	150	0.79	5	23	0.79	8.5	13.0	100
ST450RAB184JLZ	180	0.79	5	24	0.79	8.0	14.2	85
ST450RAB224JLZ	220	0.79	5	23	0.79	6.0	16.2	80
ST450RAB274JLZ	270	0.79	5	23	0.79	5.0	20.5	75
ST450RAB334JLZ	330	0.79	5	24	0.79	4.5	22.5	70
ST450RAB394JLZ	390	0.79	5	14	0.25	3.5	24.5	65
ST450RAB474JLZ	470	0.79	5	15	0.25	3.0	26.5	65
ST450RAB564JLZ	560	0.79	5	13	0.25	2.0	28.5	65
ST450RAB684JLZ	680	0.79	5	13	0.25	1.9	38.5	60
ST450RAB824JLZ	820	0.79	5	13	0.25	1.6	41.0	50
ST450RAB105JLZ	1000	0.79	5	15	0.25	1.5	44.0	50

1. When ordering, please specify **termination** and **testing** codes:

ST450RAB105JLZ

Termination: L = RoHS compliant silver-palladium-platinum glass frit.

Special order:

R = Tin over nickel over silver-platinum-glass frit.

S = Tin-lead (63/37) over silver-platinum-glass frit.

T = Tin-silver-copper (95.5/4/0.5) over silver-platinum-glass frit.

P = Tin-lead (63/37) over tin over nickel over silver-platinum-glass frit.

Q = Tin-silver-copper (95.5/4/0.5) over tin over nickel over silver-platinum-glass frit.

Testing: **Z** = COTS

H = Screening per Coilcraft CP-SA-10001

2. Inductance at 2.5 MHz measured using an Agilent/HP 4286A or equivalent and a Coilcraft SMD-A fixture with Coilcraft-provided correlation pieces. Inductance at 0.79 MHz measured using an Agilent/HP 4192A or equivalent and Coilcraft SMD-B test fixture.

3. Q read at test frequency directly on an Agilent/HP 4395A impedance analyzer and an Agilent/HP 16193A test fixture or equivalents.

4. SRF measured using an Agilent/HP 8753D network analyzer or equivalent and a Coilcraft SMD-D test fixture.

5. DCR measured on a Cambridge Technology micro-ohmmeter or equivalent.

6. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Core material Ferrite

Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Ambient temperature -40°C to +85°C with I_{max} current, +85°C to +100°C with derated current

Storage temperature Component: -55°C to +100°C. Tape and reel packaging: -55°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) +200 to +700 ppm/°C

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

Packaging 600 per 7" reel Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 3.7 mm pocket depth



CRITICAL PRODUCTS & SERVICES

1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

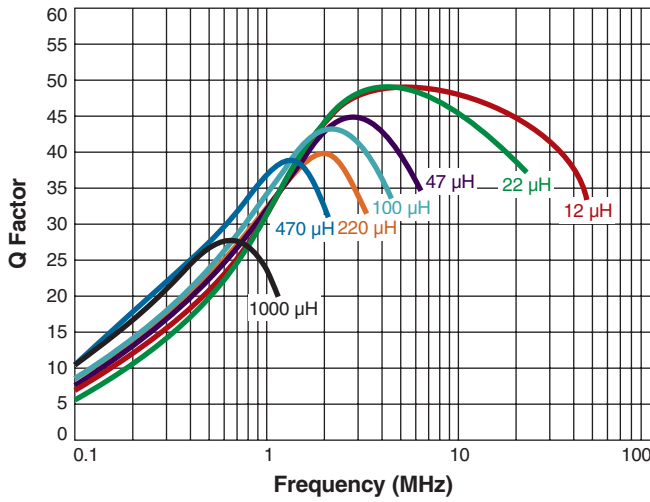
Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document ST106-1 Revised 10/14/11

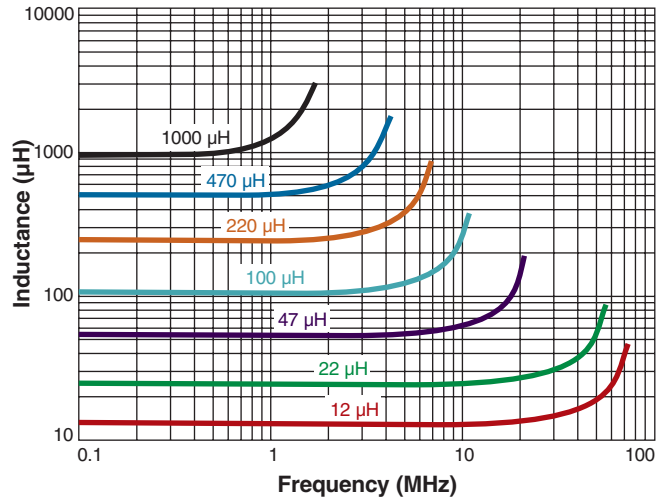
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

ST450RAB Series (1812)

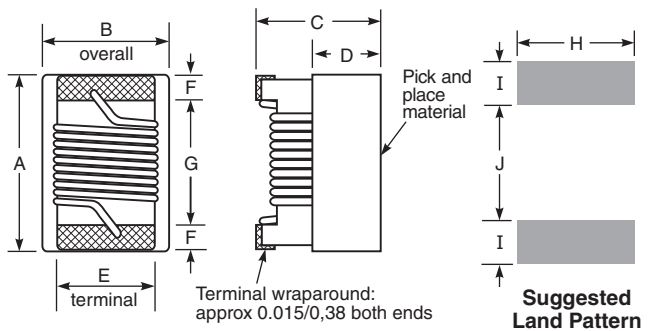
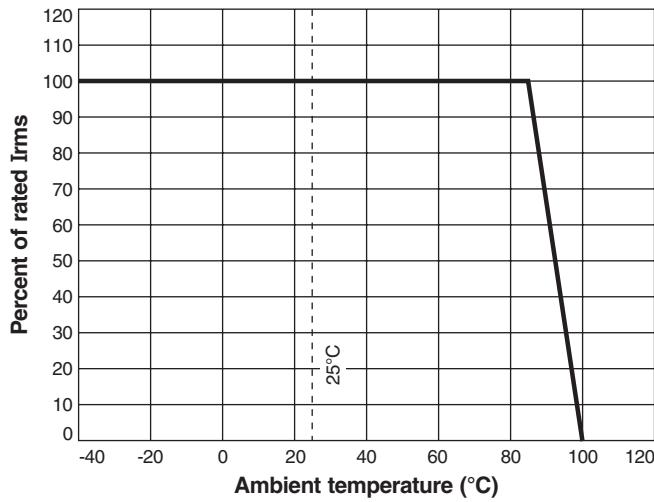
Typical Q vs Frequency



Typical L vs Frequency



Current Derating



A	B	C	D	E	F	G	H	I	J
max	max	max	ref						
0,195	0,150	0,135	0,070	0,100	0,025	0,128	0,120	0,045	0,118
4,95	3,81	3,43	1,78	2,54	0,64	3,25	3,05	1,14	3,00

Note: Dimensions are before optional solder application. For maximum overall dimensions including solder, add 0.0025 in / 0,064 mm to B and 0.006 in / 0,15 mm to A and C.



1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

© Coilcraft, Inc. 2012

Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document ST106-2 Revised 10/14/11

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.