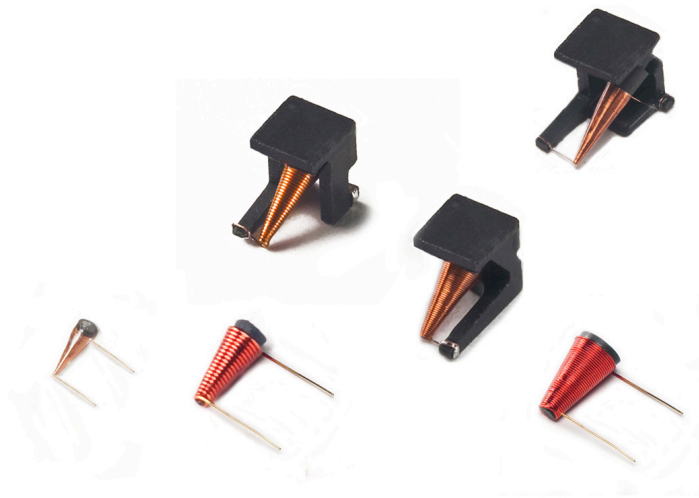




Predictable & Precise High Frequency

BROADBAND CONICAL INDUCTORS



ESTABLISHED IN 1963



IN-HOUSE TESTING



MICROWAVE EXPERTS

- 40 MHz to 40 GHz Operation
- <1% Total Mass Loss per ASTM E595 Outgas Testing
- Current Ratings to 5 Amps



ISO 9001:2000



ISO 13485

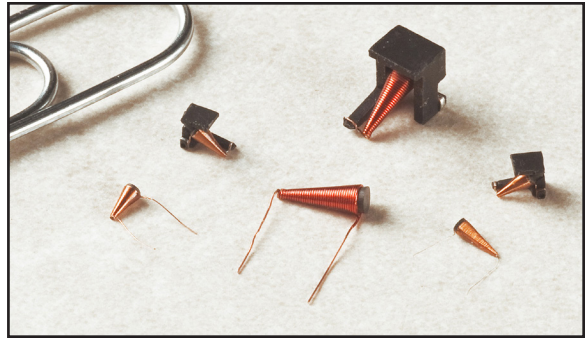


AS 9100

BROADBAND CONICALS

Inductor Solutions for High Frequency Applications

Gowanda's flying lead (thru-hole) and SMT (surface mount) broadband conical inductors offer predictable frequency response and repeatable performance from 40 MHz to 40 GHz with current ratings to 5 Amps. These conical inductors are specifically designed for high frequency communication applications where ultra-low insertion loss is a design requirement. The unique construction utilized in these broadband inductors helps to limit the effects caused by stray capacitance. For customer needs that go beyond off-the-shelf components, Gowanda maintains a leadership role in custom build-to-print conical solutions to address specific customer requirements. For assistance please call +1-716-532-2234 or email sales@gowanda.com.



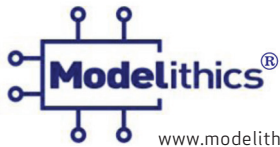
Thru-Hole - wirewound, conical, flying leads, powdered iron core



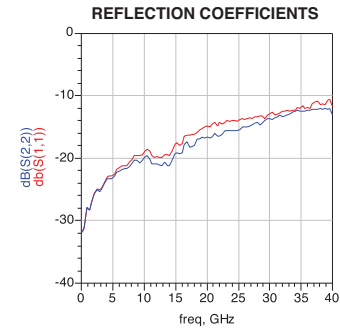
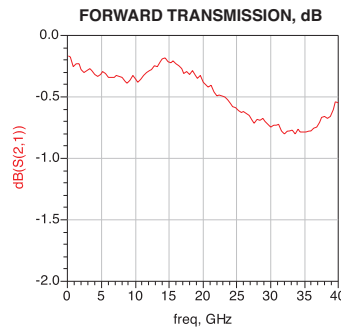
PART NUMBER	L μ H @10 MHz	TURNS	DCR OHMS NOM	CURRENT RATING mA DC	WIRE SIZE AWG	WIRE TYPE
SERIES C050FL						
C050FL2144G6	0.28	21	0.45	280	44	Gold Plated Copper
C050FL2947G6	0.47	29	0.87	204	47	Gold Plated Copper
SERIES C100FL						
C100FL1938G6	0.26	19	0.10	573	38	Gold Plated Copper
C100FL2540G6	0.37	25	0.21	396	40	Gold Plated Copper
C100FL3142G6	0.58	31	0.47	264	42	Gold Plated Copper
C100FL3944G6	1.00	39	0.74	211	44	Gold Plated Copper
C100FL4947G6	1.54	49	1.70	140	47	Gold Plated Copper

GOWANDA C100FL3944C6

S-Parameters as measured by Modelithics on 5 mil thick alumina microstrip fixtures



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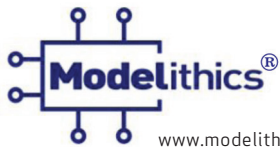


SERIES C225FL

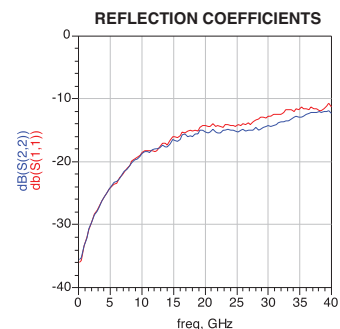
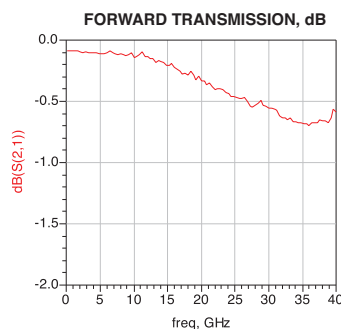
C225FL2935G6	0.60	29	0.16	562	35	Gold Plated Copper
C225FL3536G6	0.89	35	0.39	360	36	Gold Plated Copper
C225FL4338G6	1.30	43	0.47	328	38	Gold Plated Copper
C225FL5740G6	2.40	57	0.80	251	40	Gold Plated Copper
C225FL7042G6	3.80	70	1.50	184	42	Gold Plated Copper
C225FL8544G6	5.10	85	2.60	139	44	Gold Plated Copper
C225FL11047G6	8.00	110	6.40	89	47	Gold Plated Copper

GOWANDA C225FL11047C6

S-Parameters as measured by Modelithics on 5 mil thick alumina microstrip fixtures



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SERIES C550FL

C550FL1520C6	1.2	15	0.01	5000	20	Tinned Copper
C550FL3528G6	7.5	35	0.13	1400	28	Gold Plated Copper

Surface Mount - wirewound, conical, powdered iron core



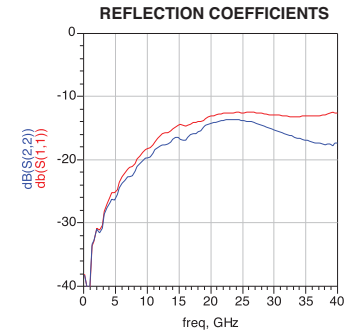
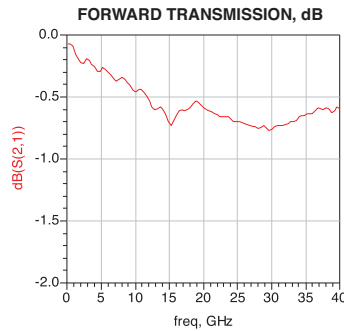
PART NUMBER	L _p H @10 MHz	TURNS	DCR OHMS NOM	CURRENT RATING mA DC	WIRE SIZE AWG	WIRE TYPE
SERIES C100SMNL						
C100SMNL1938G6	0.20	19	0.10	655	38	Gold Plated Copper
C100SMNL2540G6	0.44	25	0.21	452	40	Gold Plated Copper
C100SMNL3142G6	0.58	31	0.47	302	42	Gold Plated Copper
C100SMNL3944G6	1.00	39	0.74	241	44	Gold Plated Copper
C100SMNL4947G6	1.54	49	1.70	140	47	Gold Plated Copper

GOWANDA C100SMNL3142C6

S-Parameters as measured by Modelithics on 5 mil thick alumina microstrip fixtures



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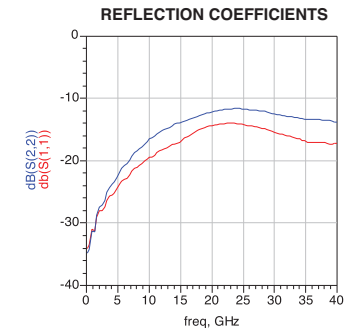
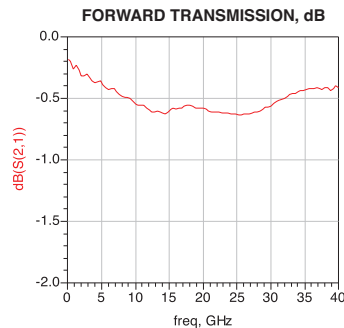
PART NUMBER	L _p H @10 MHz	TURNS	DCR OHMS NOM	CURRENT RATING mA DC	WIRE SIZE AWG	WIRE TYPE
SERIES C100SMNR						
C100SMNR1938G6	0.20	19	0.10	655	38	Gold Plated Copper
C100SMNR2540G6	0.44	25	0.21	452	40	Gold Plated Copper
C100SMNR3142G6	0.58	31	0.47	302	42	Gold Plated Copper
C100SMNR3944G6	1.00	39	0.74	241	44	Gold Plated Copper
C100SMNR4947G6	1.54	49	1.70	140	47	Gold Plated Copper

GOWANDA C100SMNR3944C6

S-Parameters as measured by Modelithics on 5 mil thick alumina microstrip fixtures



www.modelithics.com/mvp/GOWANDA/



PART NUMBER	L _p H @10 MHz	TURNS	DCR OHMS NOM	CURRENT RATING mA DC	WIRE SIZE AWG	WIRE TYPE
SERIES C225SM						
C225SM2432G6	0.45	24	0.07	1100	32	Gold Plated Copper
C225SM2935G6	0.60	29	0.16	733	35	Gold Plated Copper
C225SM3536G6	0.89	35	0.39	469	36	Gold Plated Copper
C225SM4338G6	1.30	43	0.47	428	38	Gold Plated Copper
C225SM5740G6	2.40	57	0.80	328	40	Gold Plated Copper
C225SM7042G6	3.60	70	1.50	239	42	Gold Plated Copper
C225SM8544G6	5.10	85	2.60	182	44	Gold Plated Copper
C225SM11047G6	8.00	110	6.40	116	47	Gold Plated Copper

NOTES:

- Operating Temperature Range: -55°C to +125°C
- Current Rating is based on a 35°C temperature rise at an ambient temperature of 90°C
- All non-tolerance and electrical data are reference only and based on nominal data
- Terminations for thru-hole series* are gold plated copper and RoHS compliant. Terminations for surface mount series are lead-free and RoHS compliant. *C550FL series is unique: termination is tin for C550FL1520C6 and gold for C550FL3528G6
- Meets a TML (Total Mass Loss) requirement of 1.0% maximum when tested in accordance with ASTM E595; this calculation does not include WVR (Water Vapor Recovered)

SURFACE MOUNT:

- Terminal is elongated to allow for soldering close to the tip of the coil
- Recommended that component is epoxied to substrate before reflow soldering

RELIABILITY TESTING DATA

INSPECTION	METHOD	COMMENTS	QUANTITY TESTED	QUANTITY PASSED	QUANTITY FAILED
GROUP 1					
Read and record L, Q, DCR & SRF for initial values	L, Q & SRF on HP4291A w 16092A fixture L & Q at 10 MHz	Tag with serial number in bag so that individual part correlation can be maintained	14	14	0
Resistance to Soldering Heat	Add a small amount of solder paste and mount each part to a separate TF-001 ceramic substrate fixture; submit each assembly to 3 cycles of convection soldering @ 260°C for 20 to 40 seconds, allowing them to cool to room temperature between cycles	Solder to substrate	14	14	0
		Transfer serial number to ceramic so that individual part correlation can be maintained	14	14	0
Read and record L, Q, DCR & SRF Visual Inspection	L, Q & SRF on HP4291A w 16092A fixture L & Q at 10 MHz	At room temperature calculate change from initial values (delta) for L, Q, SRF & DCR	14	14	0
GROUP 2					
Solderability	MIL-PRF-83446 para 4.6.10	Parts not exposed to any other testing; individual parts not mounted to ceramic substrate	3	3	0
GROUP 3					
Thermal Shock	MIL-PRF-83446 para. 4.6.2 except mounted	3 parts from Group 1	3	3	0
Low Temp. Storage	MIL-PRF-83446 para. 4.6.11	Same 3 parts for each test, always allow parts to come back to room temperature before continuing with next test (at least 24 hours)	3	3	0
Overload	MIL-PRF-83446 para. 4.6.13		3	3	0
High Temp. Exposure	MIL-PRF-83446 para. 4.6.14		3	3	0
Read and record L, Q, DCR & SRF Visual Inspection	L, Q & SRF on HP4291A w 16092A fixture L & Q at 10 MHz	Calculate change from initial values (delta) for L, Q, SRF & DCR	3	3	0
GROUP 4					
Moisture Resistance	MIL-PRF-83446 para. 4.6.15	3 parts from Group 1	3	3	0
Read and record L, Q, DCR & SRF	L, Q & SRF on HP4291A w 16092A fixture L & Q at 10 MHz	Calculate change from initial values (delta) for L, Q, SRF & DCR	3	3	0
GROUP 5					
Vibration Mech. Shock	MIL-STD-202, Method 201 (low freq.) MIL-STD-202, Method 213 (H)	3 parts from Group 1; use same parts for both tests	3	3	0
Read and record L, Q, DCR & SRF Visual Inspection	L, Q & SRF on HP4291A w 16092A fixture L & Q at 10 MHz	Calculate change from initial values (delta) for L, Q, SRF & DCR	3	3	0
GROUP 6					
Bond Strength	MIL-PRF-83446 para. 4.6.16	3 parts from Group 1; to destruction; record data	3	3	0
Temp. Coefficient of L	-55°C to +125°C	1 part from Group 1	1	1	0
Temp. Rise	MIL-PRF-83446 para. 4.6.12: current required to create a 40°C temp. rise from 25°C ambient	1 part from Group 1	1	1	0

Test data generated on copper wire parts (C6); parts now provided with gold plated copper (G6)

Your Source for Application-Specific Magnetics

For over 50 years, Gowanda Electronics has been providing high quality, high performance component solutions to address the needs of OEMs in the industrial, communications, military, space, aerospace, medical, and power conversion industries. Gowanda's state-of-the-art 40,000 square foot worldwide headquarters, located in Gowanda, New York, houses administration, engineering, sales, product development and a portion of manufacturing. The relentless pursuit of quality and excellence has permitted Gowanda Electronics to become a leader in the industry. Our knowledgeable engineers and customer service staff are eager to help find the solution that best suits your needs. Call us at +1-716-532-2234 or visit our comprehensive website at www.gowanda.com to find the product or capability that will help catalyze your project's success.

