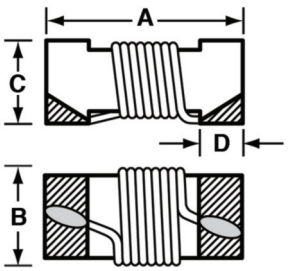
SERIES S0402

Hi-Rel Surface Mount Chip Inductors

RF Inductors



← Actual Size (Max.)

DASH NUMBER*	INDUCTANCE (nH) ± 5%	Q MINIMUM	INDUCTANCE & Q TEST FREQUENCY (MHz)	SRF MINIMUM (MHz)	DC RESISTANCE MAXIMUM (OHMS)	CURRENT RATING MAXIMUM (mA)
SERIES S0402						
-2N2J	2.2	18	250	8500	0.090	950
-3N3J	3.3	18	250	7000	0.080	800
-4N7J	4.7	14	250	4700	0.150	600
-6N8J	6.8	19	250	4800	0.100	600
-8N2J	8.2	20	250	4400	0.130	600
-10NJ	10.0	20	250	3900	0.210	475
-12NJ	12.0	21	250	3600	0.220	475
-15NJ	15.0	23	250	3280	0.220	475
-22NJ	22.0	24	250	2800	0.350	400
-27NJ	27.0	23	250	2480	0.360	400
-33NJ	33.0	23	250	2350	0.370	400
-47NJ	47.0	19	250	2100	0.830	150
-56NJ	56.0	21	250	1700	1.000	100
-68NJ	68.0	20	250	1620	1.180	100

Inductance Tolerance Options H (± 3%), G (± 2%), F (± 1%)

Physical Parameters

	Inches	Millimeters
D	0.006 - 0.010	0.152 - 0.254
A	0.037 - 0.043	0.940 -1.092
B	0.018 - 0.025	0.457 - 0.635
C	0.030 Max.	0.762 Max.

Operating Temperature Range –55°C to +125°C

Current Rating at 90°C Ambient +35°C Rise

Insulation Resistance at 100 Vdc 1000 Mohm Min.

Dielectric Withstanding Voltage (DWV) 200 Vrms.

Core Material / Termination

Al_2O_3 / Sintered MoMn / Electroplated Ni / Electroplated Au Finish (RoHS)

Termination Options: 1. Au Finish (RoHS)
2. SnPb Solder
3. Pb Free Solder (RoHS)

Electrical Characteristics Measured at +25°C

S0402 Test Plan Advantages

- Provides multiple screening alternatives
- Eliminates necessity for SCD's
- Provides quicker delivery
- Reduces overall costs

How To Order:

S0402	8N2	G	2	S
(A)	(B)	(C)	(D)	(E)

(A) Inductor Series
(B) Inductance Value
(C) Inductance Tolerance
(D) Termination Finish
(E) Test Plan Screening

S0402 Test Plan Options

Ordering Option Code		S	C	B	D	E
Screening Level		MIL-STD-981 Class "S"	MIL-STD-981 Class "S" Modified	MIL-STD-981 Class "B"	MIL-STD-981 Class "B" Modified	High Temp
Test	Method					
Thermal Shock	MIL-PRF-83446	25 Cycles 1/ (-55°C to +125°C)	25 Cycles (-55°C to +125°C)	25 Cycles 1/ (-55°C to +125°C)	25 Cycles (-55°C to +125°C)	5 Cycles (-55°C to +175°C)
No-Load Burn-In	MIL-STD-981	125°C (96 hours)	125°C (96 hours)	125°C (96 hours)	125°C (96 hours)	200°C (96 hours)
Dielectric Withstanding Voltage	MIL-PRF-83446	200 Vrms		200 Vrms		
Insulation Resistance	MIL-PRF-83446	1000 Mohms		1000 Mohms		
Electrical Characteristics: L, Q, DCR, SRF	MIL-PRF-83446	•	•	•	•	•
Radiographic Inspection	MIL-STD-981	•				
Visual & Dimensional Examination (external)	MIL-PRF-83446	•	•	•	•	
* Electrical Characteristics (initial): L, Q, DCR, SRF	MIL-PRF-83446	•	•			
* Low Temperature Operation	MIL-PRF-83446	•	•			
* Temperature Rise	MIL-PRF-83446	•				•
* Overload	MIL-PRF-83446	•	•			•
* Moisture Resistance	MIL-PRF-83446	•				
* Electrical Characteristics: L and Q	MIL-PRF-83446	•	•			
* High Temperature Exposure	MIL-PRF-83446	•	•			
* Electrical Characteristics (final)	MIL-PRF-83446	•	•			
* Bond Strength	MIL-PRF-83446	•	•			
* Visual & Mechanical Examination (external)	MIL-PRF-83446	•	•			
* Visual & Mechanical Examination (internal)	MIL-STD-981	•				
* Solderability	MIL-PRF-83446	•	•			
* Electrical Characteristics (initial): L, Q, DCR, SRF	MIL-PRF-83446	•	•			
* Life	MIL-PRF-83446	2000 Hours (90°C Ambient)	500 Hours (90°C Ambient)			500 Hours (175°C Ambient)
* Dielectric Withstanding Voltage	MIL-PRF-83446	80 Vrms	80 Vrms			
* Insulation Resistance	MIL-PRF-83446	1000 Mohms	1000 Mohms			
* Electrical Characteristics (final): L, Q, DCR, SRF	MIL-PRF-83446	•	•			
* Visual & Mechanical Examination (external)	MIL-PRF-83446	•	•			
Mechanical Shock/Vibration	MIL-STD-883					•

*Destructive Test Units Required

1/ Continually monitor continuity during the entire final cycle to verify no intermittent conditions.

270 Quaker Rd., East Aurora NY 14052 • Phone 716-652-3600 • Fax 716-652-4814 • E-mail: apisales@delevan.com • www.delevan.com

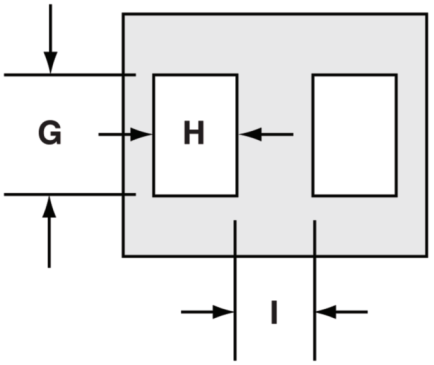
API Delevan®

3/2012

SERIES S0402

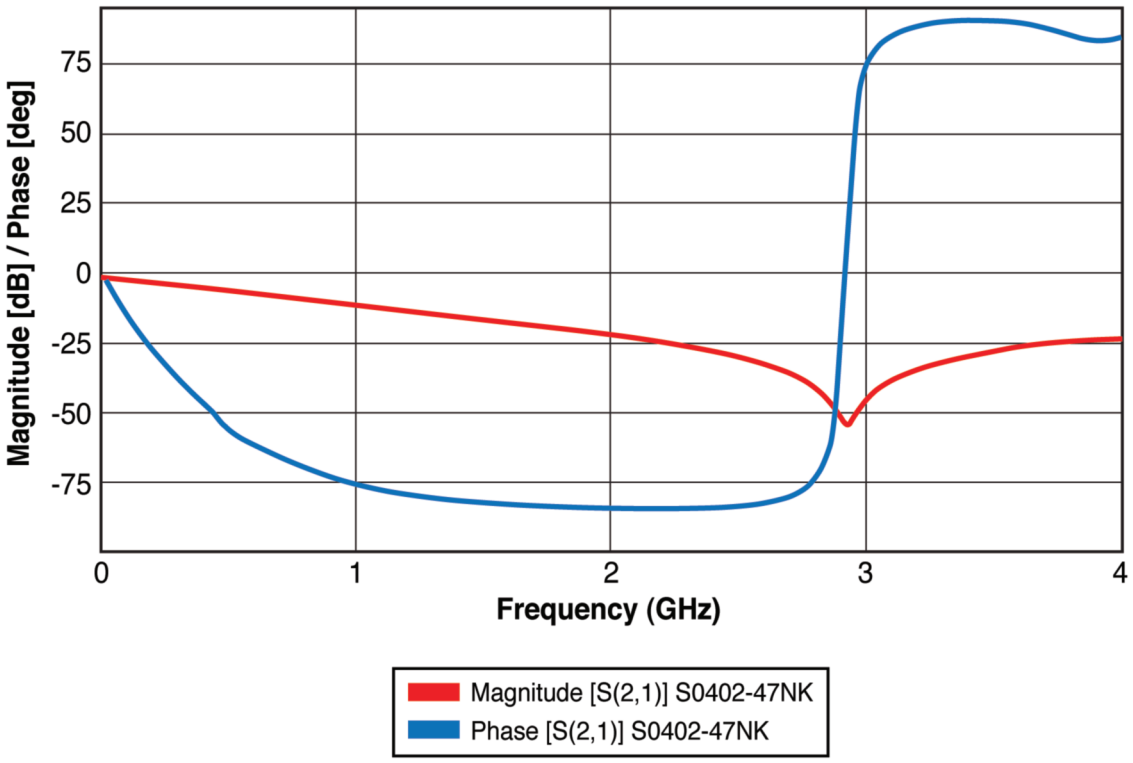
Hi-Rel Surface Mount Chip Inductors

Suggested Land Patterns



Delevan Series	G		H		I	
	Inches	mm	Inches	mm	Inches	mm
S0402 Series	0.026	0.660	0.014	0.356	0.018	0.457

S-Parameters (Typical)



All product specifications and data contained herein are subject to change without notice to improve reliability, function, performance, design or otherwise.

270 Quaker Rd., East Aurora NY 14052 • Phone 716-652-3600 • Fax 716-652-4814 • E-mail: apisales@delevan.com • www.delevan.com