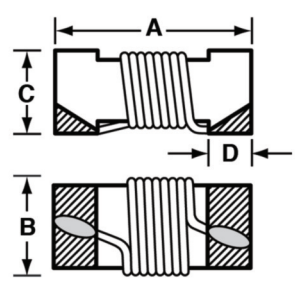


SERIES S0603

Hi-Rel Surface Mount Chip Inductors



Actual Size (Max.)

Physical Parameters

	Inches	Millimeters
D	0.011 - 0.010	0.279 - 0.381
A	0.058 - 0.062	1.473 - 1.575
B	0.028 - 0.035	0.711 - 0.889
C	0.040 Max.	1.016 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

- Al₂O₃ / 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

DASH NUMBER*	INDUCTANCE (nH) ± 5%	Q MINIMUM	INDUCTANCE & Q TEST FREQUENCY (MHz)	SRF MINIMUM (MHz)	DC RESISTANCE MAXIMUM (OHMS)	CURRENT RATING MAXIMUM (mA)
SERIES S0603						
-3N3J	3.3	18	250	6000	0.100	700
-5N6J	5.6	18	250	5800	0.190	700
-8N2J	8.2	24	250	4800	0.150	700
-10NJ	10.0	28	250	4800	0.160	700
-15NJ	15.0	32	250	4000	0.200	700
-22NJ	22.0	35	250	3000	0.220	700
-33NJ	33.0	37	250	2300	0.250	600
-39NJ	39.0	37	250	2200	0.280	600
-47NJ	47.0	35	200	2000	0.310	600
-56NJ	56.0	35	200	1900	0.340	600
-68NJ	68.0	34	200	1700	0.370	600
-82NJ	82.0	34	150	1700	0.570	400
-101NJ	100.0	31	150	1400	0.610	400
-151NJ	150.0	29	100	1300	0.980	280
-221NJ	220.0	22	100	1200	1.700	250
-271NJ	270.0	22	100	900	2.200	200

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

S0603 Test Plan Advantages

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

How To Order:

S0603	101N	J	1	C	(A) Inductor Series
(A)	(B)	(C)	(D)	(E)	(B) Inductance Value
					(C) Inductance Tolerance
					(D) Termination Finish
					(E) Test Plan Screening

S0603 Test Plan Options

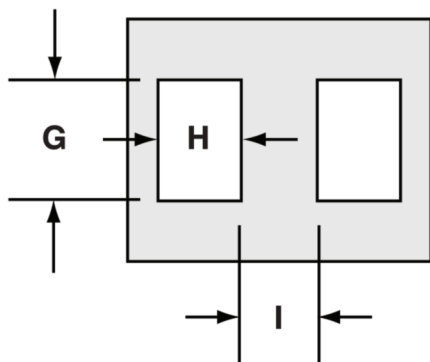
Ordering Option Code		S	C	B	D	E
Screening Level		MIL-STD-981 Class "S"	MIL-STD-981 Class "S" Modified	MIL-STD-981 Class "B"	MIL-STD-981 Class "B" Modified	High Temp
Test	Method	25 Cycles 1/ (-55°C to +125°C)	25 Cycles (-55°C to +125°C)	25 Cycles 1/ (-55°C to +125°C)	25 Cycles (-55°C to +125°C)	5 Cycles (-55°C to +175°C)
Thermal Shock	MIL-PRF-83446	125°C (96 hours)	125°C (96 hours)	125°C (96 hours)	125°C (96 hours)	200°C (96 hours)
No-Load Burn-In	MIL-STD-981	200 Vrms	200 Vrms	200 Vrms	200 Vrms	200 Vrms
Dielectric Withstanding Voltage	MIL-PRF-83446	1000 Mohms	1000 Mohms	1000 Mohms	1000 Mohms	1000 Mohms
Insulation Resistance	MIL-PRF-83446	•	•	•	•	•
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 (90°C Ambient)	500 Hours (90°C Ambient)	500 Hours (175°C Ambient)
* Dielectric Withstanding Voltage	MIL-PRF-83446	80 Vrms	80 Vrms	80 Vrms	80 Vrms	80 Vrms
* Insulation Resistance	MIL-PRF-83446	1000 Mohms	1000 Mohms	1000 Mohms	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.

SERIES S0603

Hi-Rel Surface Mount
Chip Inductors

Suggested Land Patterns

Delevan Series	G		H		I	
	Inches	mm	Inches	mm	Inches	mm
S0603 Series	0.040	1.016	0.025	0.635	0.025	0.635

**S-Parameters (Typical)**

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[API Delevan:](#)

[S0603-33NJ1D](#) [S0603-221NJ1](#) [S0603-221NJ1C](#) [S0603-33NJ2](#)