

Updated C0603, Ceramic Core Chip Inductor Product Offering

Description of Change: Expansion of product offering, C0603 Capped Chip Inductors. Added Tolerance(s), Added Test Screening Availability, Updated Smart Numbering Scheme.

Part Numbering Scheme From:

How To Order

C0603	C	—	10N0	J	1	T
Inductor Series	Substrate C = Ceramic		Inductance Tolerance is 4 significant digits with N indicating a decimal point	Tolerance G = 2% J = 5%	Termination Finish 1 = Gold over Nickel (solderable/weldable)	Packaging Option T1 = Tape & Reel, 100 Min, 100 Mult T2 = Tape & Reel, 500 Min, 500 Mult T3 = Tape & Reel, 1000 Min, 1000 Mult T4 = Tape & Reel, 100 Min, 1 Mult

To:

How To Order:

C0603 C -8N20 G 1 S
(A) (B) (C) (D) (E) (F)

- (A) Inductor Series (C0603)
- (B) Substrate Material (C - Ceramic)
- (C) Inductance Value (-1N60 through -390N)
- (D) Inductance Tolerance (M, K, J, H, G, F)
- (E) Termination Finish (1 - Au Finish (RoHS))
- (F) Test Plan Screening (S, C, B, D, E, Y)

Inductance Tolerance Options

M (± 20%), K (± 10%), J (± 5%), H (± 3%), G (± 2%), F (± 1%)

Capped Surface Mount Chip Inductors

C0603 Test Plan Options

Ordering Option Code		S	C	B	D	E	Y
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	Commercial
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.

API Delevan P/N: C0603 Family

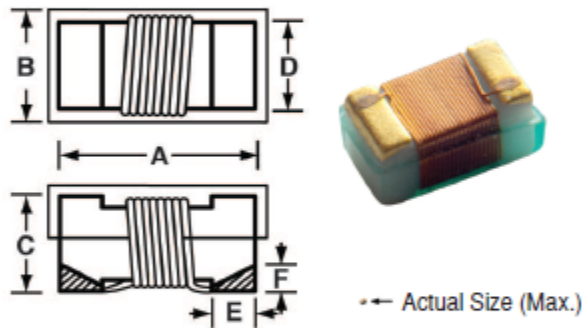
Effectivity Date: Immediately, 9/13/2023

Product Classification: Ceramic Core Chip Inductors

Series/Families Affected: C0603

SERIES C0603

Capped Surface Mount Chip Inductors



Physical Parameters

	Inches	Millimeters
A	0.071 Max.	1.80 Max.
B	0.047 Max.	1.19 Max.
C	0.040 Max.	1.02 Max.
D	0.030 (Ref. Only)	0.76 (Ref. Only)
E	0.018 (Ref. Only)	0.44 (Ref. Only)
F	0.008 (Ref. Only)	0.20 (Ref. Only)

Replacement Series: N/A

Expected Effect on Quality/Reliability/Performance:

Expanded tolerance offerings to include $\pm 1\%$, $\pm 2\%$, $\pm 3\%$, $\pm 5\%$, $\pm 10\%$ and $\pm 20\%$.

Now offering test screening capabilities for MIL-STD-981 and High Temperature environments.

Implementation Date: 9/13/2023

Issued By: API Delevan, Product Line Management

Contact Information:

API Delevan

270 Quaker Road, East Aurora, NY 14052

Phone: 716.652.3600

Email: apisales@regalrexnord.com

www.delevan.com