#### Resistive Product Solutions

#### Features:

- Exceptional Q values for small package sizes
- SRF controlled within 10%
- Stable inductance in high frequency circuits
- Highly stable design for critical requirements
- Tight tolerances down to 1% or ± 0.1nH
- 100% RoHS compliant and lead free without exemption
- Halogen free
- REACH compliant
- Contact Stackpole for additional inductance values

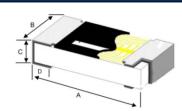
## Applications:

- Wearable devices
- Wireless LANs
- Cable/Satellite receivers
- Security systems
- Smart meters
- Connected appliances
- Various IoT devices



Inductance and Current Ranges						
Type / Code Inductance (nH) Current Range (mA)						
LTF0201	0.1 ~ 10	400 ~ 80				
LTF0402	0.2 ~ 33	800 ~ 75				

# **Mechanical Specifications**



Type / Code	Weight (g) (1000 pc.)	Α	В	С	D	Unit
LTF0201	0.23	$0.024 \pm 0.002$	$0.012 \pm 0.002$	$0.009 \pm 0.002$	$0.006 \pm 0.002$	inches
LIFUZUI	0.23	$0.60 \pm 0.05$	$0.30 \pm 0.05$	0.23 ± 0.05	$0.15 \pm 0.05$	mm
LTF0402	0.9	$0.039 \pm 0.002$	$0.020 \pm 0.002$	0.013 ± 0.002	$0.008 \pm 0.004$	inches
L1F0402	0.9	1.00 ± 0.05	$0.50 \pm 0.05$	$0.32 \pm 0.05$	$0.20 \pm 0.10$	mm

Performance Characteristics					
Test	Test Specification	Test Condition			
Inductance	as specified	Measuring equipment and fixture: 0201: HP4287 + Agilent 16196C 0402: HP4287 + Agilent 16196B			
Insulation Resistance	> 1000 Mohm  MIL-STD-202 Method 302  Apply 100 V <sub>DC</sub> for 1 minute				
Damp Heat with Load	Δ L ≤ 10%	MIL-STD-202 Method 103B 40 ± 2°C, 90 ~ 95% R.H. Max working voltage for 1000 hours with 1.5 hours "ON" and 0.5 hour "OFF"			
Bending Strength	as specified	JIS-C-5201-1 6.1.4 Bending amplitude 3 mm for 10 seconds			
Solderability	95% min. coverage	MIL-STD-202 Method 208H 245 ± 5°C for 3 seconds			
Resistance to Soldering Heat	Δ L ≤ 10%	MIL-STD-202 Method 210E 260 ± 5°C for 10 seconds			

# LTF Series Thin Film Chip Inductor

Performance Characteristics (cont.)						
Test Test Specification Test Condition						
Dielectric Withstand Voltage	> 100V	MIL-STD-202 Method 301 Apply 100 VA (rms) for 1 minute				
High Temperature Exposure	Δ L ≤ 10%	JIS-C-5201-1 7.2 85 ± 2°C, 1000 +48 / -0 hours				
Low Temperature Storage	Δ L ≤ 10%	JIS-C-5201-1 7.1 -40 ± 3°C, 1000 +48 / -0 hours				
Temperature Cycle	Δ L ≤ 10%	JIS-C-5201-1 7.4 -40 / RT / 85 / RT, 10 cycles				

Storage Temperature: 15 ~ 28°C; Humidity < 80%RH

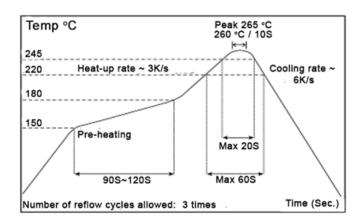
	Electrical Specifications – LTF0201						
D (N)	Inductance	Inductance	Quality Factor (MHz)	SRF (GHz)	DCR (Ω)	IDC (mA)	
Part Number	(nH)	Tolerance (nH or %)	min.	min.	max.	max.	
LTF0201 T0N1	0.1	±0.1, 0.2, 0.3 nH	8 / 500	9	0.2	400	
LTF0201 T0N2	0.2	±0.1, 0.2, 0.3 nH	8 / 500	9	0.2	400	
LTF0201 _ T0N3	0.3	±0.1, 0.2, 0.3 nH	8 / 500	9	0.2	400	
LTF0201 _ T0N4	0.4	±0.1, 0.2, 0.3 nH	8 / 500	9	0.25	350	
LTF0201 _ T0N5	0.5	±0.1, 0.2, 0.3 nH	8 / 500	9	0.25	350	
LTF0201 _ T0N6	0.6	±0.1, 0.2, 0.3 nH	8 / 500	9	0.25	350	
LTF0201_T0N7	0.7	±0.1, 0.2, 0.3 nH	8 / 500	9	0.3	300	
LTF0201_T0N8	0.8	±0.1, 0.2, 0.3 nH	8 / 500	9	0.3	300	
LTF0201_T0N9	0.9	±0.1, 0.2, 0.3 nH	8 / 500	9	0.3	300	
LTF0201 _ T1N0	1	±0.1, 0.2, 0.3 nH	8 / 500	9	0.3	300	
LTF0201_T1N1	1.1	±0.1, 0.2, 0.3 nH	8 / 500	9	0.35	300	
LTF0201_T1N2	1.2	±0.1, 0.2, 0.3 nH	8 / 500	9	0.35	300	
LTF0201_T1N3	1.3	±0.1, 0.2, 0.3 nH	8 / 500	9	0.45	250	
LTF0201_T1N4	1.4	±0.1, 0.2, 0.3 nH	8 / 500	9	0.45	250	
LTF0201_T1N5	1.5	±0.1, 0.2, 0.3 nH	8 / 500	9	0.45	250	
LTF0201_T1N6	1.6	±0.1, 0.2, 0.3 nH	8 / 500	9	0.55	200	
LTF0201_T1N7	1.7	±0.1, 0.2, 0.3 nH	8 / 500	9	0.55	200	
LTF0201_T1N8	1.8	±0.1, 0.2, 0.3 nH	8 / 500	9	0.55	200	
LTF0201_T1N9	1.9	±0.1, 0.2, 0.3 nH	8 / 500	9	0.55	200	
LTF0201_T2N0	2	±0.1, 0.2, 0.3 nH	8 / 500	8	0.7	200	
LTF0201_T2N1	2.1	±0.1, 0.2, 0.3 nH	8 / 500	8	0.7	200	
LTF0201_T2N2	2.2	±0.1, 0.2, 0.3 nH	8 / 500	8	0.7	200	
LTF0201_T2N3	2.3	±0.1, 0.2, 0.3 nH	8 / 500	8	0.8	150	
LTF0201_T2N4	2.4	±0.1, 0.2, 0.3 nH	8 / 500	8	0.8	150	
LTF0201 _ T2N5	2.5	±0.1, 0.2, 0.3 nH	8 / 500	8	0.8	150	
LTF0201_T2N6	2.6	±0.1, 0.2, 0.3 nH	8 / 500	8	0.8	150	
LTF0201 _ T2N7	2.7	±0.1, 0.2, 0.3 nH	8 / 500	8	0.8	150	
LTF0201_T2N8	2.8	±0.1, 0.2, 0.3 nH	8 / 500	6	1	150	
LTF0201 _ T2N9	2.9	±0.1, 0.2, 0.3 nH	8 / 500	6	1	150	
LTF0201 _ T3N0	3	±0.1, 0.2, 0.3 nH	8 / 500	6	1	150	
LTF0201 _ T3N1	3.1	±0.1, 0.2, 0.3 nH	8 / 500	6	1	150	
LTF0201 _ T3N2	3.2	±0.1, 0.2, 0.3 nH	8 / 500	6	1	150	
LTF0201 _ T3N3	3.3	±0.1, 0.2, 0.3 nH	8 / 500	6	1	150	
LTF0201 _ T3N4	3.4	±0.1, 0.2, 0.3 nH	8 / 500	6	1.2	150	
LTF0201 _ T3N5	3.5	±0.1, 0.2, 0.3 nH	8 / 500	6	1.2	150	
LTF0201 _ T3N6	3.6	±0.1, 0.2, 0.3 nH	8 / 500	6	1.2	150	
LTF0201 _ T3N7	3.7	±0.1, 0.2, 0.3 nH	8 / 500	6	1.2	150	
LTF0201 _ T3N8	3.8	±0.1, 0.2, 0.3 nH	8 / 500	6	1.2	150	
LTF0201 _ T3N9	3.9	±0.1, 0.2, 0.3 nH	8 / 500	6	1.2	150	
LTF0201 _ T4N0	4	±0.1, 0.2, 0.3 nH	8 / 500	6	1.2	150	
LTF0201 _ T4N4	4.4	±0.1, 0.2, 0.3 nH	8 / 500	6	1.3	140	
LTF0201 _ T4N7	4.7	±0.1, 0.2, 0.3 nH	8 / 500	6	1.4	130	
LTF0201 _ T4N9	4.9	±0.1, 0.2, 0.3 nH	8 / 500	6	1.6	130	

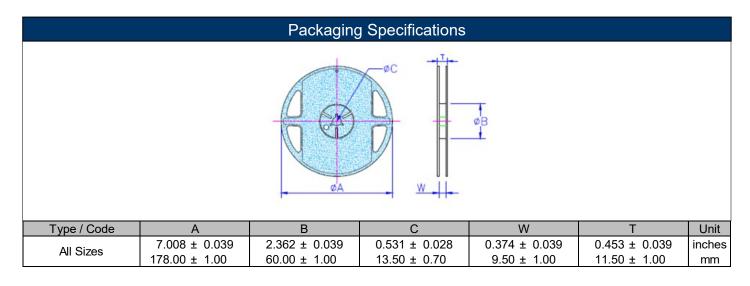
Electrical Specifications – LTF0201 (cont.)								
Part Number	Inductance	Inductance	Quality Factor (MHz)	SRF (GHz)	DCR (Ω)	IDC (mA)		
Part Number	(nH)	Tolerance (nH or %)	min.	min.	max.	max.		
LTF0201 _ T5N6	5.6	±2, ±5%	8 / 500	4	1.8	130		
LTF0201 _ T6N1	6.1	±2, ±5%	8 / 500	4	2	120		
LTF0201 _ T6N8	6.8	±2, ±5%	8 / 500	4	2.3	110		
LTF0201 _ T7N4	7.4	±2, ±5%	8 / 500	4	2.8	110		
LTF0201 _ T8N2	8.2	±2, ±5%	8 / 500	3	3	110		
LTF0201 _ T9N1	9.1	±2, ±5%	8 / 500	3	3.25	100		
LTF0201 _ T9N2	9.2	±2, ±5%	8 / 500	3	3.25	100		
LTF0201 _ T10N	10	±2, ±5%	8 / 500	2	3.5	80		

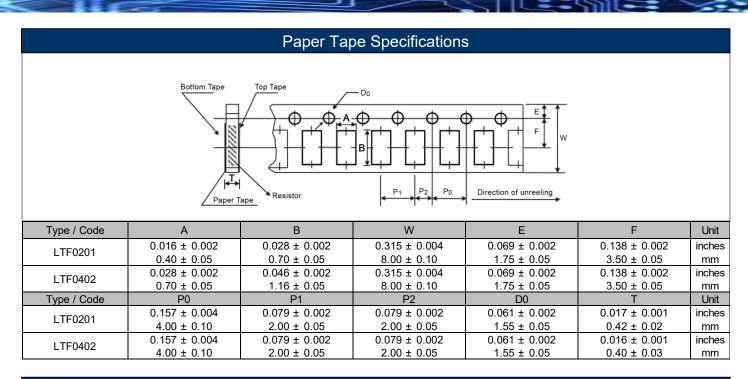
		Electrical S	pecifications -	LTF0402		
Part Number	Inductance (nH)	Inductance Tolerance (nH or %)	Quality Factor (MHz) min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
LTF0402 T0N2	0.2	±0.1, 0.2, 0.3 nH	13 / 500	14	0.10	800
LTF0402 T0N3	0.3	±0.1, 0.2, 0.3 nH	13 / 500	14	0.10	800
LTF0402 T0N4	0.4	±0.1, 0.2, 0.3 nH	13 / 500	14	0.10	800
LTF0402 T0N5	0.5	±0.1, 0.2, 0.3 nH	13 / 500	14	0.15	700
LTF0402 T0N6	0.6	±0.1, 0.2, 0.3 nH	13 / 500	14	0.15	700
LTF0402 T0N8	0.8	±0.1, 0.2, 0.3 nH	13 / 500	14	0.15	700
LTF0402 T0N9	0.9	±0.1, 0.2, 0.3 nH	13 / 500	14	0.15	700
LTF0402 T1N0	1.0	±0.1, 0.2, 0.3 nH	13 / 500	12	0.15	700
LTF0402 T1N1	1.1	±0.1, 0.2, 0.3 nH	13 / 500	12	0.15	700
LTF0402 T1N2	1.2	±0.1, 0.2, 0.3 nH	13 / 500	12	0.15	700
LTF0402 T1N3	1.3	±0.1, 0.2, 0.3 nH	13 / 500	10	0.25	700
LTF0402 T1N4	1.4	±0.1, 0.2, 0.3 nH	13 / 500	10	0.25	700
LTF0402 T1N5	1.5	±0.1, 0.2, 0.3 nH	13 / 500	10	0.25	700
LTF0402 T1N6	1.6	±0.1, 0.2, 0.3 nH	13 / 500	10	0.25	560
LTF0402 T1N7	1.7	±0.1, 0.2, 0.3 nH	13 / 500	10	0.25	560
LTF0402 T1N8	1.8	±0.1, 0.2, 0.3 nH	13 / 500	10	0.25	560
LTF0402 T1N9	1.9	±0.1, 0.2, 0.3 nH	13 / 500	8	0.35	560
LTF0402 T2N0	2.0	±0.1, 0.2, 0.3 nH	13 / 500	8	0.35	560
LTF0402 T2N1	2.1	±0.1, 0.2, 0.3 nH	13 / 500	8	0.35	440
LTF0402 T2N2	2.2	±0.1, 0.2, 0.3 nH	13 / 500	8	0.35	440
LTF0402 T2N3	2.3	±0.1, 0.2, 0.3 nH	13 / 500	8	0.35	440
LTF0402 T2N4	2.4	±0.1, 0.2, 0.3 nH	13 / 500	8	0.35	440
LTF0402 _ T2N5	2.5	±0.1, 0.2, 0.3 nH	13 / 500	8	0.35	440
LTF0402 _ T2N6	2.6	±0.1, 0.2, 0.3 nH	13 / 500	8	0.35	440
LTF0402 _ T2N7	2.7	±0.1, 0.2, 0.3 nH	13 / 500	8	0.35	440
LTF0402 _ T2N8	2.8	±0.1, 0.2, 0.3 nH	13 / 500	6	0.45	380
LTF0402 _ T2N9	2.9	±0.1, 0.2, 0.3 nH	13 / 500	6	0.45	380
LTF0402 _ T3N0	3.0	±0.1, 0.2, 0.3 nH	13 / 500	6	0.45	380
LTF0402 _ T3N1	3.1	±0.1, 0.2, 0.3 nH	13 / 500	6	0.45	380
LTF0402 _ T3N2	3.2	±0.1, 0.2, 0.3 nH	13 / 500	6	0.45	380
LTF0402 _ T3N3	3.3	±0.1, 0.2, 0.3 nH	13 / 500	6	0.45	380
LTF0402 _ T3N4	3.4	±0.1, 0.2, 0.3 nH	13 / 500	6	0.55	380
LTF0402 _ T3N5	3.5	±0.1, 0.2, 0.3 nH	13 / 500	6	0.55	380
LTF0402_T3N6	3.6	±0.1, 0.2, 0.3 nH	13 / 500	6	0.55	380
LTF0402 _ T3N7	3.7	±0.1, 0.2, 0.3 nH	13 / 500	6	0.55	340
LTF0402 _ T3N8	3.8	±0.1, 0.2, 0.3 nH	13 / 500	6	0.55	340
LTF0402 _ T3N9	3.9	±0.1, 0.2, 0.3 nH	13 / 500	6	0.55	340
LTF0402 _ T4N3	4.3	±0.1, 0.2, 0.3 nH	13 / 500	6	0.65	320
LTF0402 _ T4N7	4.7	±0.1, 0.2, 0.3 nH	13 / 500	6	0.65	320
LTF0402 _ T5N4	5.4	±0.1, 0.2, 0.3 nH	13 / 500	6	0.85	280
LTF0402 _ T5N6	5.6	±0.1, 0.2, 0.3 nH	13 / 500	6	0.85	280
LTF0402 _ T5N9	5.9	±0.1, 0.2, 0.3 nH	13 / 500	6	0.85	280
LTF0402 _ T6N5	6.5	±0.1, 0.2, 0.3 nH	13 / 500	6	1.05	260
LTF0402 _ T6N8	6.8	±0.1, 0.2, 0.3 nH	13 / 500	6	1.05	260

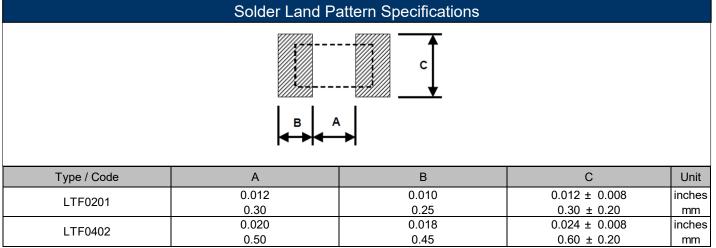
	Electrical Specifications - LTF0402 (cont.)							
Part Number	Inductance	Inductance	Quality Factor (MHz)	SRF (GHz)	DCR (Ω)	IDC (mA)		
Part Number	(nH)	Tolerance (nH or %)	min.	min.	max.	max.		
LTF0402 _ T7N2	7.2	±0.1, 0.2, 0.3 nH	13 / 500	6	1.05	260		
LTF0402 _ T8N0	8.0	±0.1, 0.2, 0.3 nH	13 / 500	5.5	1.25	220		
LTF0402 _ T8N1	8.1	±0.1, 0.2, 0.3 nH	13 / 500	5.5	1.25	220		
LTF0402 _ T8N2	8.2	±0.1, 0.2, 0.3 nH	13 / 500	5.5	1.25	220		
LTF0402 _ T9N1	9.1	±0.1, 0.2, 0.3 nH	13 / 500	5.5	1.25	220		
LTF0402 _ T10N	10.0	±1, 2, 3, 5%	13 / 500	4.5	1.35	200		
LTF0402 _ T10N8	10.8	±1, 2, 3, 5%	13 / 500	4.5	1.35	200		
LTF0402 _ T12N	12.0	±1, 2, 3, 5%	13 / 500	3.7	1.55	180		
LTF0402 _ T13N8	13.8	±1, 2, 3, 5%	13 / 500	3.7	1.75	180		
LTF0402 _ T15N	15.0	±1, 2, 3, 5%	13 / 500	3.3	1.75	130		
LTF0402 _ T17N	17.0	±1, 2, 3, 5%	13 / 500	3.1	1.95	100		
LTF0402 _ T18N	18.0	±1, 2, 3, 5%	13 / 500	3.1	2.15	100		
LTF0402 _ T20N8	20.8	±1, 2, 3, 5%	13 / 500	2.8	2.55	90		
LTF0402 _ T22N	22.0	±1, 2, 3, 5%	13 / 500	2.8	2.65	90		
LTF0402 _ T27N	27.0	±1, 2, 3, 5%	13 / 500	2.5	3.25	75		
LTF0402 _ T33N	33.0	±5%	13 / 500	2.5	4.50	75		

### **Reflow Chart:**









#### **RoHS Compliance**

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union's directive regarding "Restrictions on Hazardous Substances" (RoHS 3). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament as amended by Directive (EU) 2015/863/EU as regards the list of restricted substances.

	RoHS Compliance Status							
Standard Product Series	Description	Package / Termination Type	Standard Series RoHS Compliant	Lead-Free Termination Composition	Lead-Free Mfg. Effective Date (Std Product Series)	Lead-Free Effective Date Code (YY/WW)		
LTF	Thin Film Surface Mount Chip Inductor	SMD	YES	100% Matte Sn over Ni	May-04	04/18		

#### "Conflict Metals" Commitment

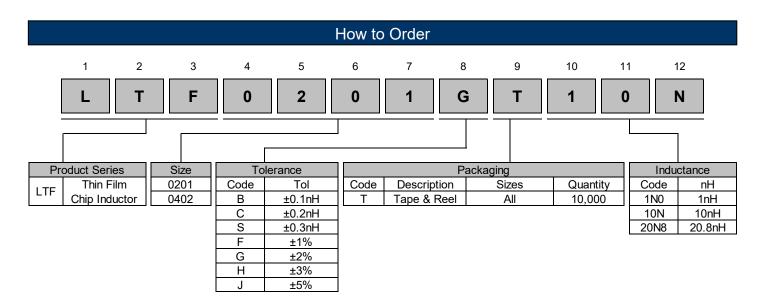
We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the "conflict region" of the eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

#### Compliance to "REACH"

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, "The Registration, Evaluation, Authorization and Restriction of Chemicals", otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

#### **Environmental Policy**

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.



# Legacy Part Number:

