

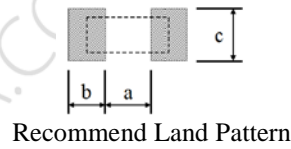
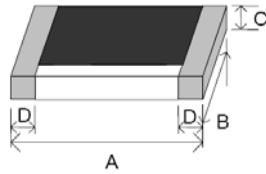


A. Electrical Specifications:

Part No.	L (nH)	Tolerance	Q (Min)	Test Frequency	SRF (GHz) Min.	DCR (Ω) Max.	I rms.(mA) Max.
0402TF-N20_	0.2	B, C, S	13	500 MHz	14	0.10	800
0402TF-N30_	0.3	B, C, S	13	500 MHz	14	0.10	800
0402TF-N40_	0.4	B, C, S	13	500 MHz	14	0.10	800
0402TF-N50_	0.5	B, C, S	13	500 MHz	14	0.15	700
0402TF-N60_	0.6	B, C, S	13	500 MHz	14	0.15	700
0402TF-N80_	0.8	B, C, S	13	500 MHz	14	0.15	700
0402TF-N90_	0.9	B, C, S	13	500 MHz	14	0.15	700
0402TF-1N0_	1.0	B, C, S	13	500 MHz	12	0.15	700
0402TF-1N1_	1.1	B, C, S	13	500 MHz	12	0.15	700
0402TF-1N2_	1.2	B, C, S	13	500 MHz	12	0.15	700
0402TF-1N3_	1.3	B, C, S	13	500 MHz	10	0.25	700
0402TF-1N4_	1.4	B, C, S	13	500 MHz	10	0.25	700
0402TF-1N5_	1.5	B, C, S	13	500 MHz	10	0.25	700
0402TF-1N6_	1.6	B, C, S	13	500 MHz	10	0.25	560
0402TF-1N7_	1.7	B, C, S	13	500 MHz	10	0.25	560
0402TF-1N8_	1.8	B, C, S	13	500 MHz	10	0.25	560
0402TF-1N9_	1.9	B, C, S	13	500 MHz	8.0	0.35	560
0402TF-2N0_	2.0	B, C, S	13	500 MHz	8.0	0.35	560
0402TF-2N1_	2.1	B, C, S	13	500 MHz	8.0	0.35	440
0402TF-2N2_	2.2	B, C, S	13	500 MHz	8.0	0.35	440
0402TF-2N3_	2.3	B, C, S	13	500 MHz	8.0	0.35	440
0402TF-2N4_	2.4	B, C, S	13	500 MHz	8.0	0.35	440
0402TF-2N5_	2.5	B, C, S	13	500 MHz	8.0	0.35	440
0402TF-2N6_	2.6	B, C, S	13	500 MHz	8.0	0.35	440
0402TF-2N7_	2.7	B, C, S	13	500 MHz	8.0	0.35	440
0402TF-2N8_	2.8	B, C, S	13	500 MHz	6.0	0.45	380
0402TF-2N9_	2.9	B, C, S	13	500 MHz	6.0	0.45	380
0402TF-3N0_	3.0	B, C, S	13	500 MHz	6.0	0.45	380
0402TF-3N1_	3.1	B, C, S	13	500 MHz	6.0	0.45	380
0402TF-3N2_	3.2	B, C, S	13	500 MHz	6.0	0.45	380
0402TF-3N3_	3.3	B, C, S	13	500 MHz	6.0	0.45	380
0402TF-3N4_	3.4	B, C, S	13	500 MHz	6.0	0.55	380
0402TF-3N5_	3.5	B, C, S	13	500 MHz	6.0	0.55	380
0402TF-3N6_	3.6	B, C, S	13	500 MHz	6.0	0.55	380
0402TF-3N7_	3.7	B, C, S	13	500 MHz	6.0	0.55	340
0402TF-3N8_	3.8	B, C, S	13	500 MHz	6.0	0.55	340
0402TF-3N9_	3.9	B, C, S	13	500 MHz	6.0	0.55	340
0402TF-4N3_	4.3	B, C, S	13	500 MHz	6.0	0.65	320
0402TF-4N7_	4.7	B, C, S	13	500 MHz	6.0	0.65	320
0402TF-5N4_	5.4	B, C, S	13	500 MHz	6.0	0.85	280
0402TF-5N6_	5.6	B, C, S	13	500 MHz	6.0	0.85	280
0402TF-5N9_	5.9	B, C, S	13	500 MHz	6.0	0.85	280
0402TF-6N5_	6.5	B, C, S	13	500 MHz	6.0	1.05	260
0402TF-6N8_	6.8	B, C, S	13	500 MHz	6.0	1.05	260
0402TF-7N2_	7.2	B, C, S	13	500 MHz	6.0	1.05	260
0402TF-8N0_	8.0	B, C, S	13	500 MHz	5.5	1.25	220
0402TF-8N1_	8.1	B, C, S	13	500 MHz	5.5	1.25	220
0402TF-8N2_	8.2	B, C, S	13	500 MHz	5.5	1.25	220
0402TF-9N1_	9.1	B, C, S	13	500 MHz	5.5	1.25	220
0402TF-10N_	10.0	J, H, G, F	13	500 MHz	4.5	1.35	200
0402TF-10N8_	10.8	J, H, G, F	13	500 MHz	4.5	1.35	200
0402TF-12N_	12.0	J, H, G, F	13	500 MHz	3.7	1.55	180
0402TF-13N8_	13.8	J, H, G, F	13	500 MHz	3.7	1.75	180
0402TF-15N_	15.0	J, H, G, F	13	500 MHz	3.3	1.75	130
0402TF-17N_	17.0	J, H, G, F	13	500 MHz	3.1	1.95	100
0402TF-18N_	18.0	J, H, G, F	13	500 MHz	3.1	2.15	100
0402TF-20N8_	20.8	J, H, G, F	13	500 MHz	2.8	2.55	90
0402TF-22N_	22.0	J, H, G, F	13	500 MHz	2.8	2.65	90
0402TF-27N_	27.0	J, H, G, F	13	500 MHz	2.5	3.25	75
0402TF-33N_	33.0	J	13	500 MHz	2.5	4.50	75

B. Dimensions and Recommend Land Pattern: (mm/inch)

Series	A	B	C	D	a	b	c
0402TF	1.00±0.05 (0.039±0.002)	0.50±0.05 (0.020±0.002)	0.32±0.05 (0.013±0.002)	0.20±0.10 (0.008±0.004)	0.50 (0.020)	0.45 (0.018)	0.60±0.20 (0.024±0.008)



C. Part Number (Example):



D. General information:

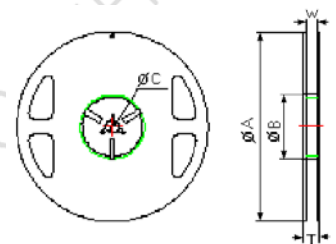
- 0402TF-xxx, "0402TF" = P/N, "xxx" = Inductance, "_" = Tolerance.
- Tolerance "_": J: ± 5%, H: ± 3%, G: ± 2%, F: ± 1%, B: ± 0.1nH, C: ± 0.2nH, S: ±0.3nH.
- A Photo Lithographic Single Layer Ceramic Chip.
- High SRF, Excellent Q, Superior Temperature Stability
- Tight Tolerance of ± 1% or ± 0.1nH
- Stable Inductance in High Frequency Circuit
- Maximum Temperature Rise: 15°C (when measured at 25°C ambient).
- Inductance & Q measured using the HP4286A and Agilent 16196B.
- SRF measured using the HP8720D or HP8753E.
- DCR measured using the 502BC.
- Operating temperature: -40°C to +125°C.
- Storage Temperature: 25°C ± 3°C; Humidity < 80%RH
- Inductance Range: 0.20 nH (800 mA) ~ 33.0 nH (75 mA),
- SRF Range: 14.0 GHz to 2.5 GHz.
- MSL: Level 1.

E. Applications:

- Cellular-phone, Pagers and GPS Products.
- VCO, TCXO Circuit and RF Transceiver Module.
- Wireless LAN, Bluetooth Module, Communication Appliances Hybrid.

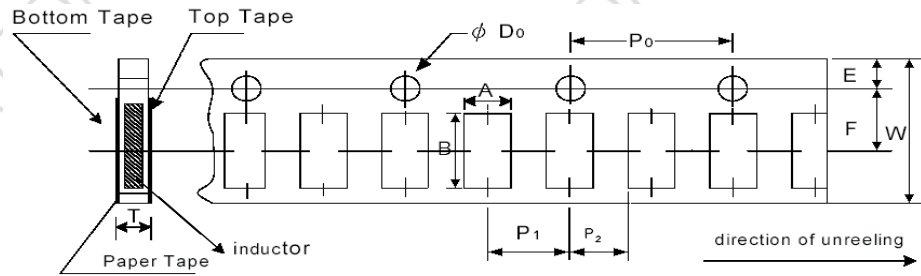
F. Reel Specification:

Series	φA	φB	φC	W	T	Quantity
0402TF	178±1 (7±0.040)	60 ± 1.0 (0.236±0.040)	13.5 ± 0.70 (0.531±0.028)	9.5 ± 1.0 (0.374±0.040)	11.5 ± 1.0 (0.453±0.040)	10,000 PCS



G. Paper Tape Specification:

Series	A	B	W	E	F	Po	P1	P2	φDo	T
0402TF	0.70±0.05 (0.028±0.002)	1.16±0.05 (0.046±0.002)	8.00±0.10 (0.315±0.004)	1.75±0.05 (0.069±0.002)	3.50±0.05 (0.138±0.002)	4.00±0.10 (0.158±0.004)	2.00±0.05 (0.079±0.002)	2.00±0.05 (0.079±0.002)	1.55±0.05 (0.061±0.002)	0.40±0.03 (0.016±0.0012)



Tape & Reel Storage Temperature: 25°C ± 3°C, Humidity: < 80% RH.

H. Environmental Characteristics:

ITEM	Specification	Test Method
1 Inductance	As SPEC.	Measuring equipment and fixture: HP4287 + Agilent 16196C
2 Insulation Resistance	>1000MΩ	MIL-STD-202F Method 302 Apply 100V _{DC} for 1 minute
3 Damp Heat with Load	ΔL ≤ 10%	MIL-STD-202F Method 103B 40±2°C, 90~95% R.H. Max. working voltage for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF"
4 Bending Strength	As SPEC.	JIS-C-5201-1 6.1.4 Bending Amplitude 3mm for 10 seconds
5 Solder-ability	95% min coverage	MIL-STD-202F Method 208H 245±5°C for 3 seconds
6 Resistance to Soldering Heat	ΔL ≤ 10%	MIL-STD-202F Method 210E 260±5°C for 10 seconds
7 Dielectric Withstand Voltage	>100V	MIL-STD-202F Method 301. Apply 100VA (rms) for 1minute.
8 High Temperature Exposure	ΔL ≤ 10%	JIS-C-5201-1-7.2 85°C ± 2°C, 1000 +48/-0 hours
9 Low Temperature Storage	ΔL ≤ 10%	JIS-C-5201-1-7.1 -40°C ± 3°C, 1000 +48/-0 hours
10 Temperature Cycle	ΔL ≤ 10%	JIS-C-5201-1-7.4 -40/RT/85/RT, 10 cycles

- Storage Temperature: 25±3°C; Humidity < 80% RH

J. Solder Profile:

