

## TFL Series



The TFL Series is designed for miniaturized devices, featuring low inductance, high precision and low loss. It allows for easy impedance matching for both RF and IF circuit designs as well as compact high frequency circuit designs

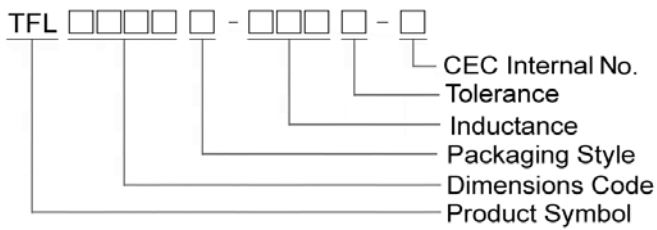
### Features

- Ultra small size
- Excellent Q factor and SRF characteristics
- Minimal deviation in inductance
- Finely graded inductance level

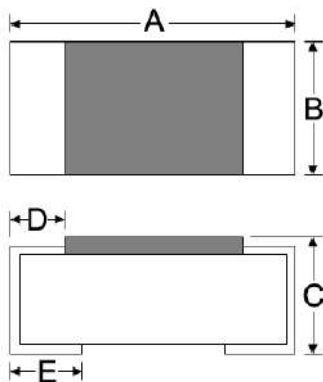
### Applications

- RF and wireless communication
- Bluetooth, cellular phone, ultrabook, telecommunications, W-LAN
- High frequency circuits in general

### Product Identification



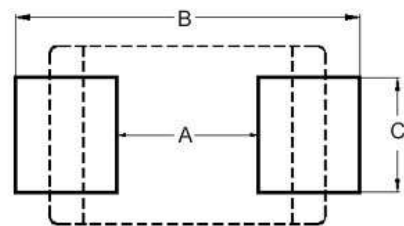
### Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D	E
TFL0603	0.61±0.05	0.31±0.05	0.30±0.05	0.10±0.05	0.15±0.05

### Recommended Pattern



Dimensions in mm

TYPE	A	B	C
TFL0603	0.3	0.75 ~ 1.05	0.3

## SMD Thin Film Chip Inductors – TFL Series

### Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Typ	RDC (Ω) Max	Rated Current (mA) Max
TFL0603T-0N6□-S	0.6	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.10	900
TFL0603T-0N7□-S	0.7	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.10	850
TFL0603T-0N8□-S	0.8	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.10	850
TFL0603T-0N9□-S	0.9	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.10	800
TFL0603T-1N0□-S	1.0	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.10	800
TFL0603T-1N1□-S	1.1	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.10	800
TFL0603T-1N2□-S	1.2	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.10	800
TFL0603T-1N3□-S	1.3	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.12	650
TFL0603T-1N4□-S	1.4	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.13	650
TFL0603T-1N5□-S	1.5	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.16	650
TFL0603T-1N6□-S	1.6	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.16	650
TFL0603T-1N7□-S	1.7	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.20	650
TFL0603T-1N8□-S	1.8	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.20	650
TFL0603T-1N9□-S	1.9	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.20	620
TFL0603T-2N0□-S	2.0	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.20	620
TFL0603T-2N1□-S	2.1	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.20	620
TFL0603T-2N2□-S	2.2	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.20	620
TFL0603T-2N3□-S	2.3	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.20	500
TFL0603T-2N4□-S	2.4	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.20	500
TFL0603T-2N5□-S	2.5	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.20	500
TFL0603T-2N6□-S	2.6	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.20	500
TFL0603T-2N7□-S	2.7	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.23	500
TFL0603T-2N8□-S	2.8	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.25	500
TFL0603T-2N9□-S	2.9	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.25	500
TFL0603T-3N0□-S	3.0	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.30	450
TFL0603T-3N1□-S	3.1	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.30	450
TFL0603T-3N2□-S	3.2	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.30	450
TFL0603T-3N3□-S	3.3	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.30	450
TFL0603T-3N4□-S	3.4	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.32	450
TFL0603T-3N5□-S	3.5	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.32	450
TFL0603T-3N6□-S	3.6	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.32	400
TFL0603T-3N7□-S	3.7	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.40	400
TFL0603T-3N8□-S	3.8	±0.1nH/±0.2nH	14	500 / 500mV	6000	0.40	350
TFL0603T-3N9□-S	3.9	±0.1nH/±0.2nH	14	500 / 500mV	5700	0.40	350
TFL0603T-4N3□-S	4.3	3 / 5	14	500 / 500mV	5300	0.40	300
TFL0603T-4N7□-S	4.7	3 / 5	14	500 / 500mV	4400	0.45	280
TFL0603T-5N1□-S	5.1	3 / 5	14	500 / 500mV	4200	0.50	270
TFL0603T-5N6□-S	5.6	3 / 5	14	500 / 500mV	4000	0.55	260
TFL0603T-6N2□-S	6.2	3 / 5	14	500 / 500mV	4000	0.60	250
TFL0603T-6N8□-S	6.8	3 / 5	14	500 / 500mV	3900	0.70	230
TFL0603T-7N5□-S	7.5	3 / 5	12	500 / 500mV	3700	1.10	180
TFL0603T-8N2□-S	8.2	3 / 5	12	500 / 500mV	3600	1.20	180
TFL0603T-9N1□-S	9.1	3 / 5	12	500 / 500mV	3300	1.20	180
TFL0603T-10N□-S	10	3 / 5	12	500 / 500mV	3200	1.30	180

Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without advance notice. Please contact our sales department before ordering.

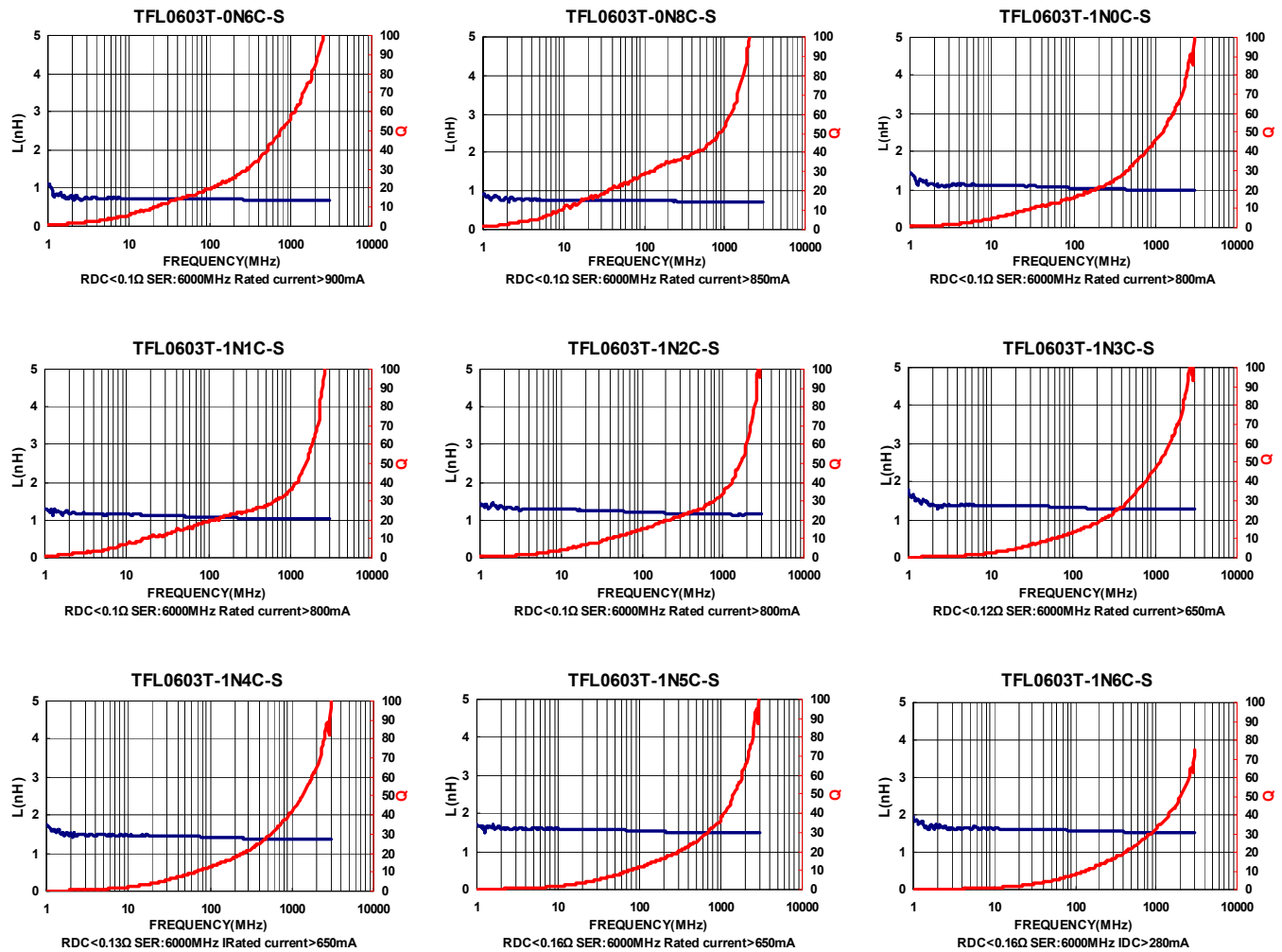
## Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Typ	RDC (Ω) Max	Rated Current (mA) Max
TFL0603T-12N□-S	12	3 / 5	12	500 / 500mV	2900	1.30	180
TFL0603T-15N□-S	15	3 / 5	12	500 / 500mV	2600	1.50	180
TFL0603T-18N□-S	18	3 / 5	12	500 / 500mV	2200	1.70	160
TFL0603T-22N□-S	22	3 / 5	12	500 / 500mV	2200	2.55	120

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1nH , C=±0.2nH , H=±3% , J=±5%

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Rated Current : Applied the current to coils, the inductance shall be less than 10% initial value
- Measure Equipment :  
 L & Q : Agilent E4991A+Agilent 16197A  
 SRF : HP8753D  
 RDC : HP4338B or CHEN HWA 502

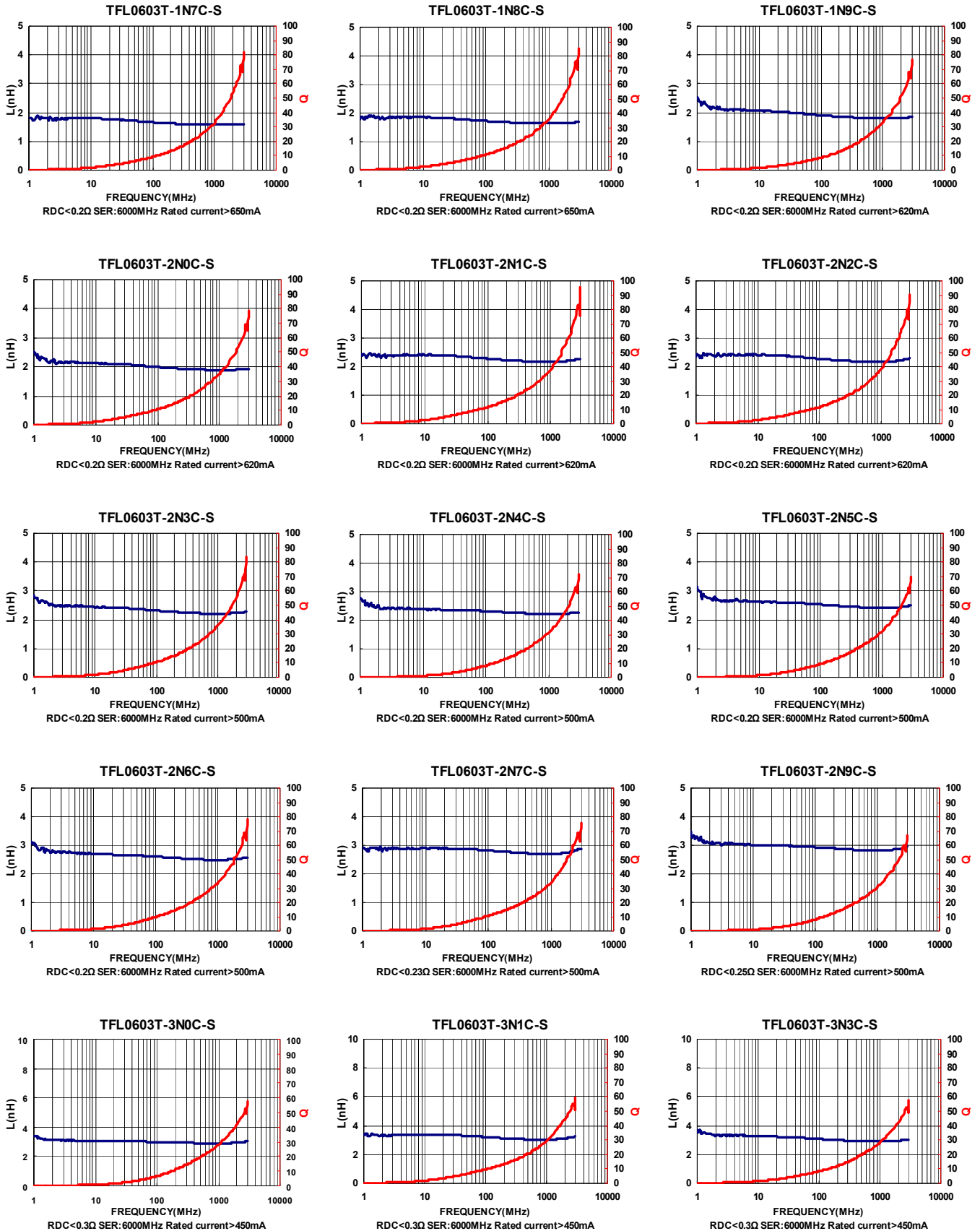
## Test Instruments : Agilent E4991A Material/Impedance Analyzer



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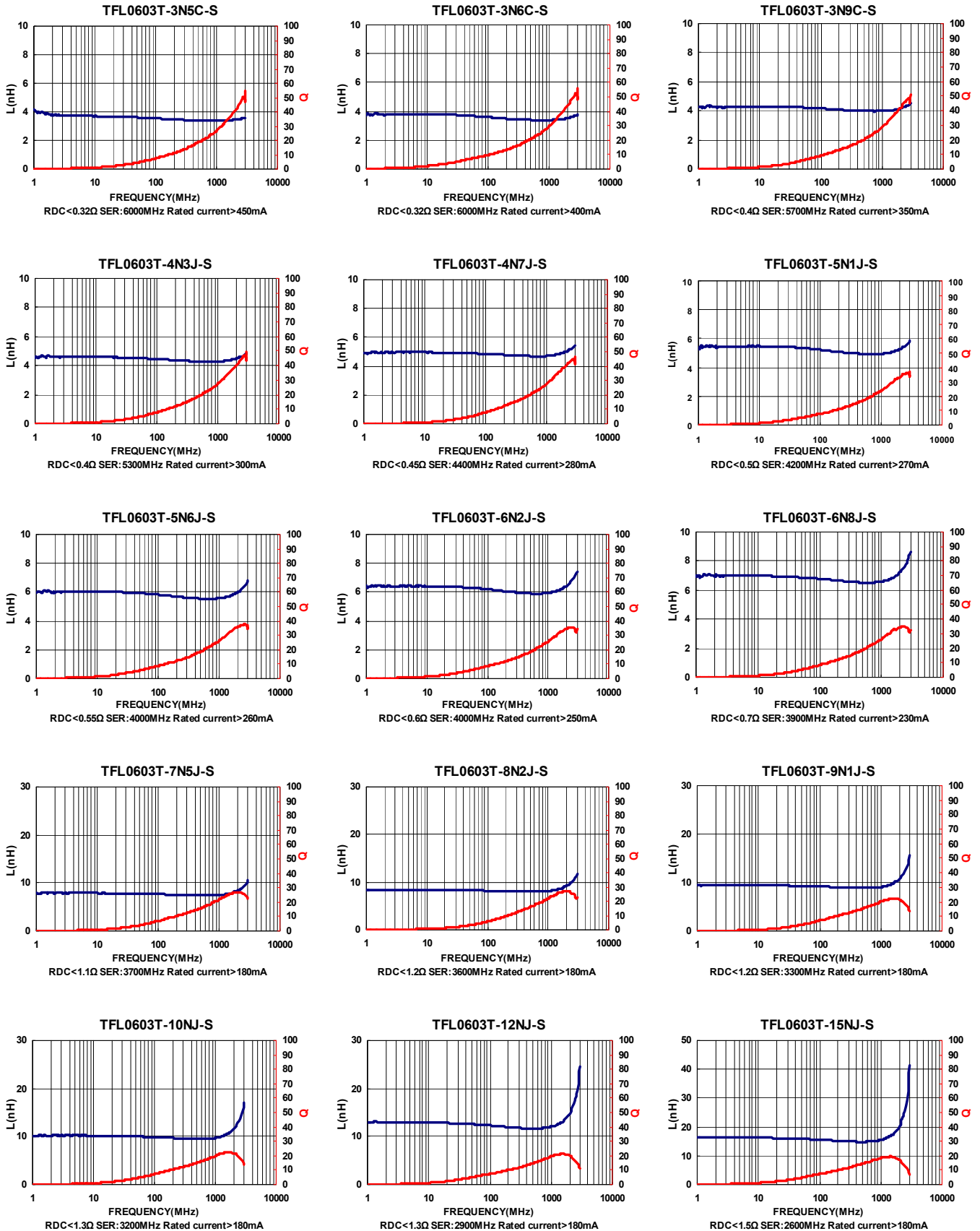
# SMD Thin Film Chip Inductors - TFL Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer



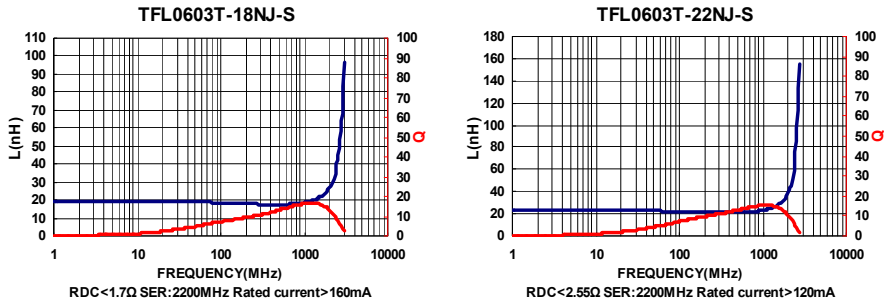
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## Test Instruments : Agilent E4991A Material/Impedance Analyzer



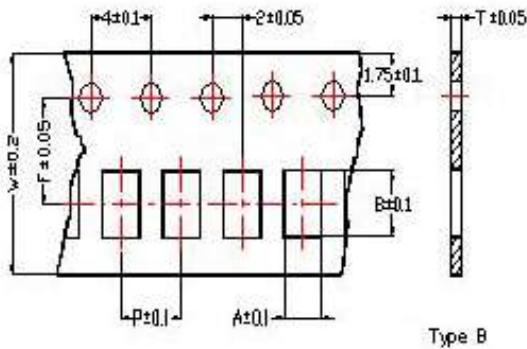
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**Test Instruments :** Agilent E4991A Material/Impedance Analyzer



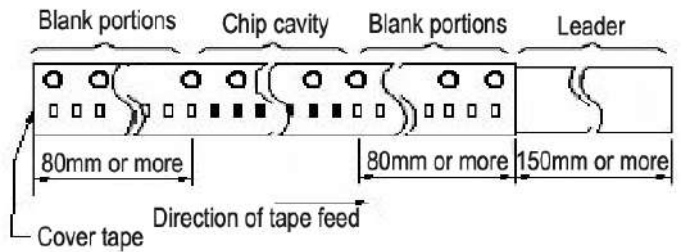
## Packaging Specifications

### Tape Dimensions

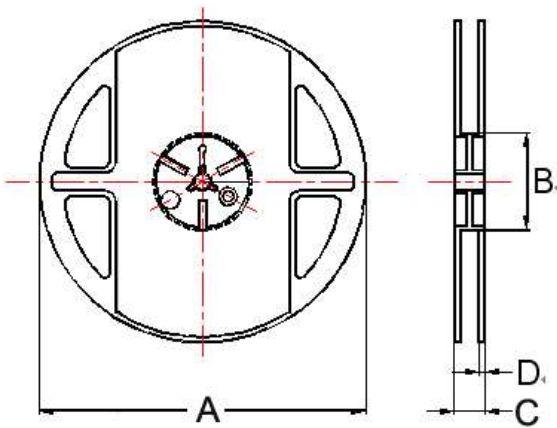


### Tape Material

Carrier tape : Paper  
 Cover tape : Polyethylene



### Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions						Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	A	B	C	D	
TFL0603	0.37	0.67	0.42	8	2	3.5	180	60	13	1.5	15000

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