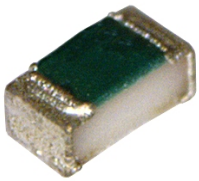
TFL Series



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

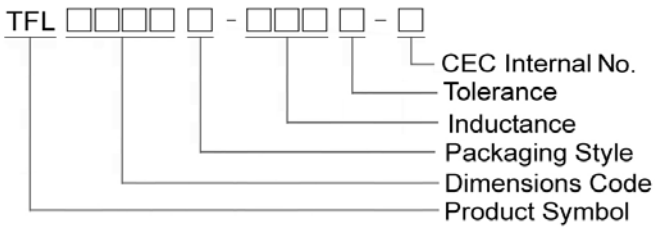
Features

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

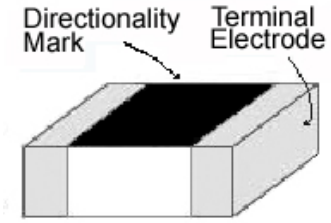
Applications

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

Product Identification



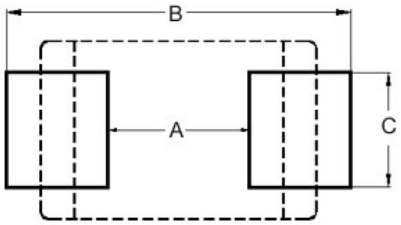
Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D
TFL0603	0.6±0.03	0.3±0.03	0.3±0.03	0.10±0.05

Recommended Pattern



Dimensions in mm

TYPE	A	B	C
TFL0603	0.3	0.75 ~ 1.05	0.3

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Typ.	DC Resistance (Ω) Max	IDC (mA) Max
TFL0603T-0N6□-S	0.6	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.10	450
TFL0603T-0N7□-S	0.7	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.10	450
TFL0603T-0N8□-S	0.8	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.10	420
TFL0603T-0N9□-S	0.9	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.10	410
TFL0603T-1N0□-S	1.0	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.10	410
TFL0603T-1N1□-S	1.1	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.10	400
TFL0603T-1N2□-S	1.2	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.10	280
TFL0603T-1N3□-S	1.3	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.12	280
TFL0603T-1N4□-S	1.4	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.13	280
TFL0603T-1N5□-S	1.5	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.16	280
TFL0603T-1N6□-S	1.6	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.16	280
TFL0603T-1N7□-S	1.7	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.20	280
TFL0603T-1N8□-S	1.8	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.20	220
TFL0603T-1N9□-S	1.9	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.20	220
TFL0603T-2N0□-S	2.0	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.20	220
TFL0603T-2N1□-S	2.1	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.20	220
TFL0603T-2N2□-S	2.2	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.20	220
TFL0603T-2N3□-S	2.3	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.20	220
TFL0603T-2N4□-S	2.4	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.20	220
TFL0603T-2N5□-S	2.5	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.20	220
TFL0603T-2N6□-S	2.6	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.20	220
TFL0603T-2N7□-S	2.7	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.23	220
TFL0603T-2N8□-S	2.8	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.25	220
TFL0603T-2N9□-S	2.9	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.25	220
TFL0603T-3N0□-S	3.0	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.30	220
TFL0603T-3N1□-S	3.1	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.30	190
TFL0603T-3N2□-S	3.2	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.30	190
TFL0603T-3N3□-S	3.3	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.30	190
TFL0603T-3N4□-S	3.4	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.32	170
TFL0603T-3N5□-S	3.5	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.32	170
TFL0603T-3N6□-S	3.6	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.32	170
TFL0603T-3N7□-S	3.7	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.40	170
TFL0603T-3N8□-S	3.8	±0.1nH/±0.2nH	12	500 / 500mV	6000	0.40	170
TFL0603T-3N9□-S	3.9	±0.1nH/±0.2nH	12	500 / 500mV	5700	0.40	170
TFL0603T-4N3□-S	4.3	3/5	12	500 / 500mV	5300	0.40	160
TFL0603T-4N7□-S	4.7	3/5	12	500 / 500mV	4400	0.45	150
TFL0603T-5N1□-S	5.1	3/5	12	500 / 500mV	4200	0.50	140
TFL0603T-5N6□-S	5.6	3/5	12	500 / 500mV	4000	0.55	140
TFL0603T-6N2□-S	6.2	3/5	12	500 / 500mV	4000	0.60	130
TFL0603T-6N8□-S	6.8	3/5	12	500 / 500mV	3900	0.70	130
TFL0603T-7N5□-S	7.5	3/5	12	500 / 500mV	3700	1.10	110
TFL0603T-8N2□-S	8.2	3/5	12	500 / 500mV	3600	1.20	110
TFL0603T-9N1□-S	9.1	3/5	12	500 / 500mV	3300	1.20	100
TFL0603T-10N□-S	10	3/5	12	500 / 500mV	3200	1.30	90

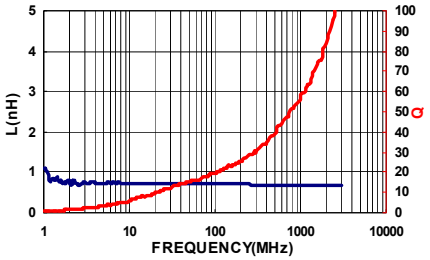
Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Typ.	DC Resistance (Ω) Max	IDC (mA) Max
TFL0603T-12N□-S	12	3/5	12	500 / 500mV	2900	1.30	90
TFL0603T-15N□-S	15	3/5	12	500 / 500mV	2600	1.50	90
TFL0603T-18N□-S	18	3/5	12	500 / 500mV	2200	1.70	80
TFL0603T-22N□-S	22	3/5	12	500 / 500mV	2200	2.55	70

-
- Tolerance：B = ± 0.1nH , C = ± 0.2nH , H = ± 3% , J = ± 5%
- Test Instruments： L/Q：Agilent E4991A Fixture：Agilent 16197A
  SRF：HP8753D
  RDC：HP4338B/ CH502BC

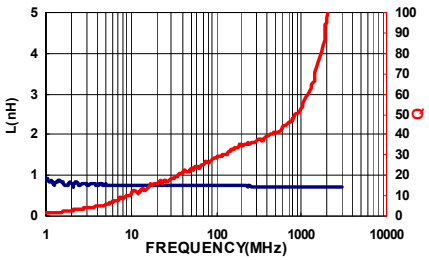
Test Instruments：Agilent E4991A Material/Impedance Analyzer

TFL0603T-0N6C-S



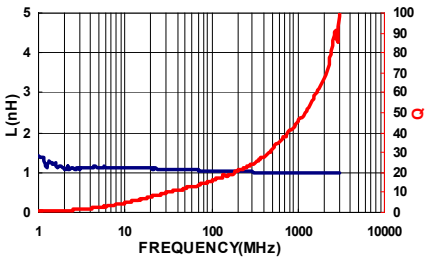
RDC<0.1Ω SER:6000MHz IDC>450mA

TFL0603T-0N8C-S



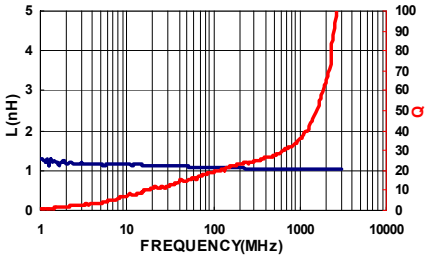
RDC<0.1Ω SER:6000MHz IDC>420mA

TFL0603T-1N0C-S



RDC<0.1Ω SER:6000MHz IDC>410mA

TFL0603T-1N1C-S



RDC<0.1Ω SER:6000MHz IDC>400mA

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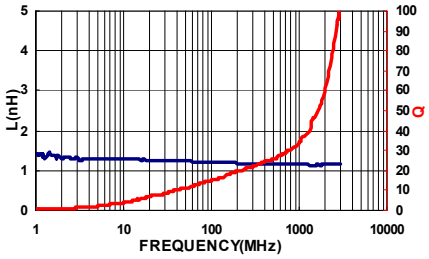
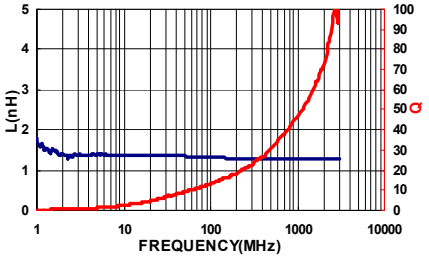


RDC<0.1Ω SER:6000MHz IDC>280mA

TFL0603T-1N3C-S



RDC<0.12Ω SER:6000MHz IDC>280mA

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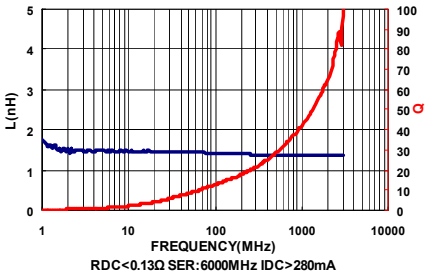
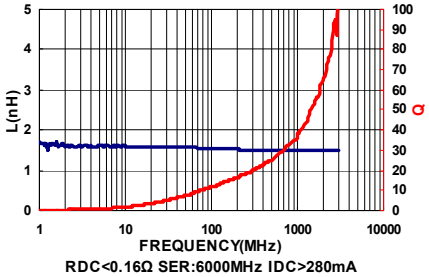


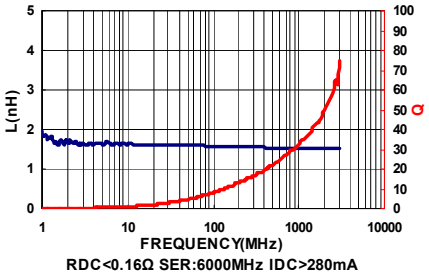
RDC<0.13Ω SER:6000MHz IDC>280mA

TFL0603T-1N5C-S



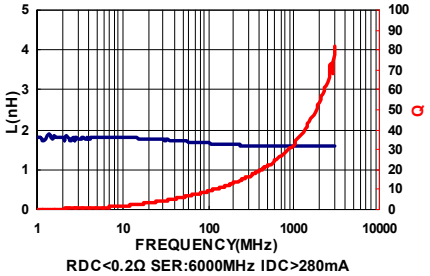
RDC<0.16Ω SER:6000MHz IDC>280mA

TFL0603T-1N6C-S



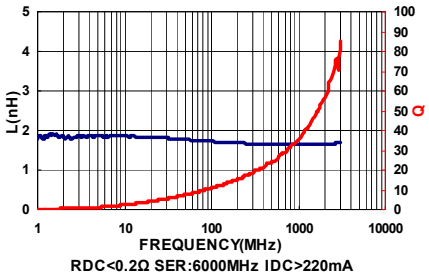
RDC<0.16Ω SER:6000MHz IDC>280mA

TFL0603T-1N7C-S



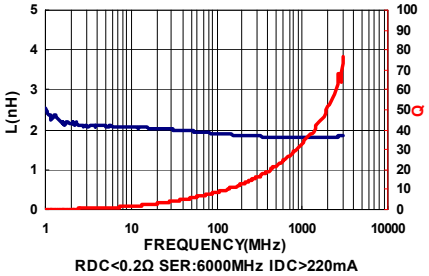
RDC<0.2Ω SER:6000MHz IDC>280mA

TFL0603T-1N8C-S



RDC<0.2Ω SER:6000MHz IDC>220mA

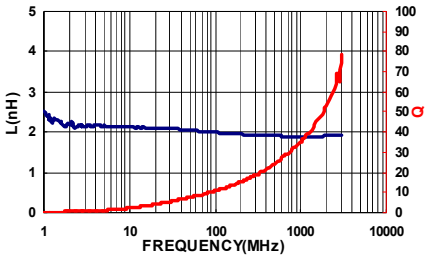
TFL0603T-1N9C-S



RDC<0.2Ω SER:6000MHz IDC>220mA

Test Instruments：Agilent E4991A Material/Impedance Analyzer

TFL0603T-2N0C-S



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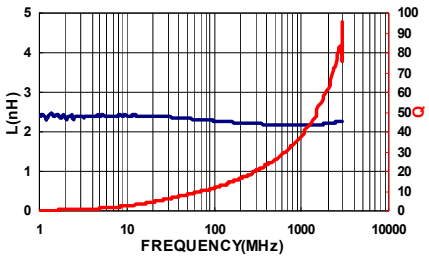

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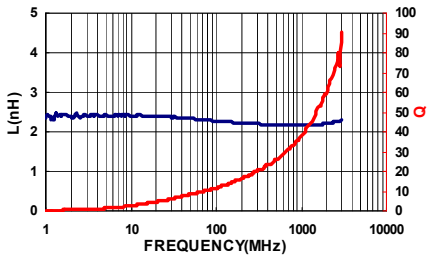

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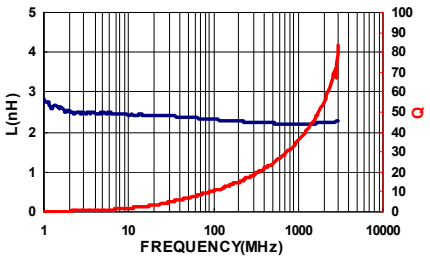
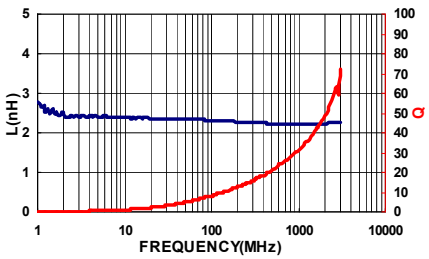


RDC<0.2Ω SER:6000MHz IDC>220mA

TFL0603T-2N4C-S



RDC<0.2Ω SER:6000MHz IDC>220mA

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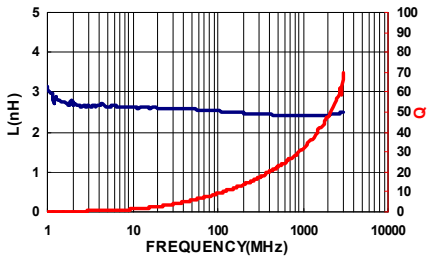

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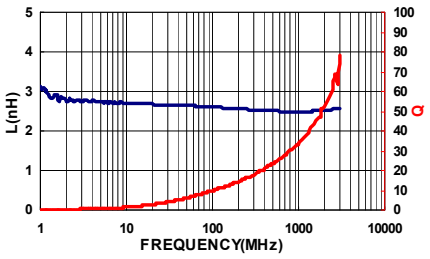

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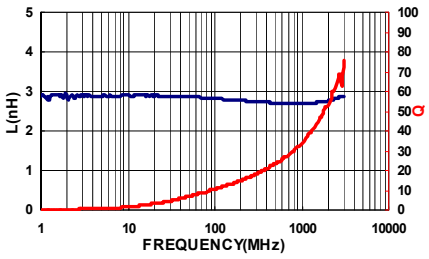

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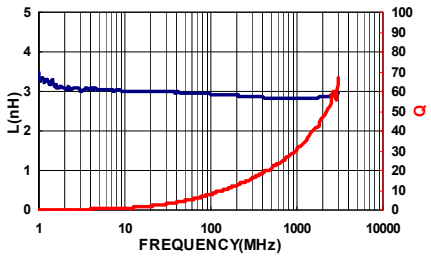
TFL0603T-2N9C-S



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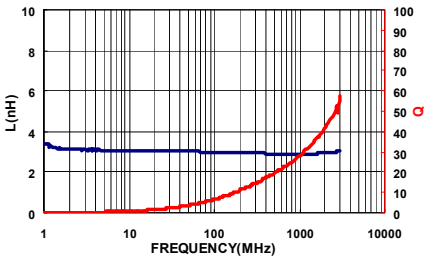
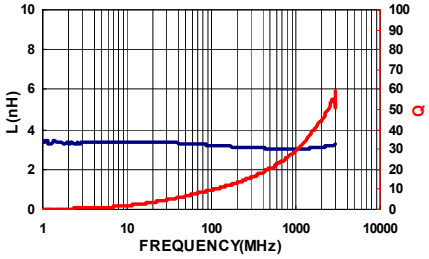


RDC<0.3Ω SER:6000MHz IDC>220mA

TFL0603T-3N1C-S



RDC<0.3Ω SER:6000MHz IDC>190mA

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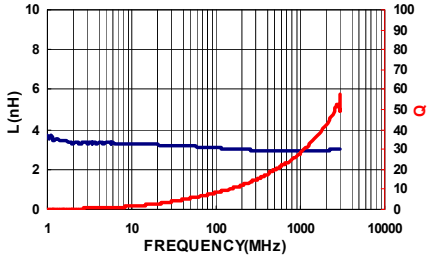

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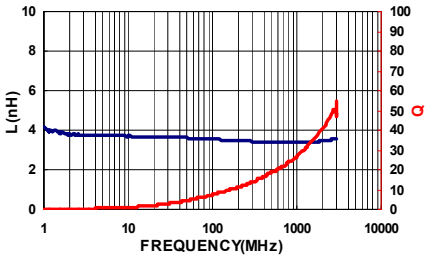

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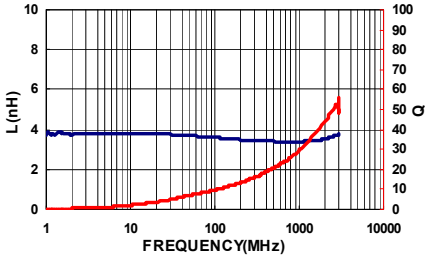
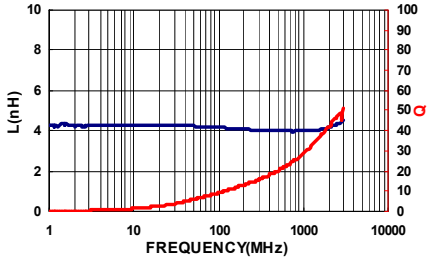


RDC<0.32Ω SER:6000MHz IDC>170mA

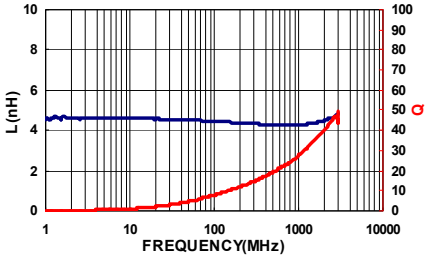
TFL0603T-3N9C-S



RDC<0.4Ω SER:5700MHz IDC>170mA

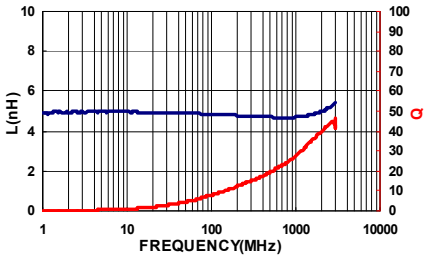
est Instruments：Agilent E4991A Material/Impedance Analyzer

TFL0603T-4N3J-S



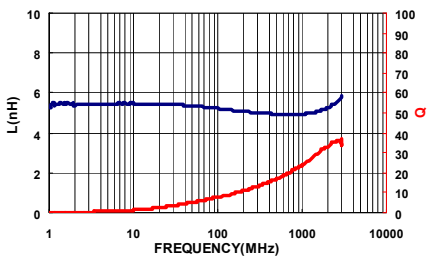
RDC<0.4Ω SER:5300MHz IDC>160mA

TFL0603T-4N7J-S



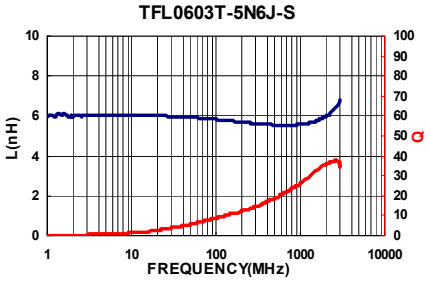
RDC<0.45Ω SER:4400MHz IDC>150mA

TFL0603T-5N1J-S



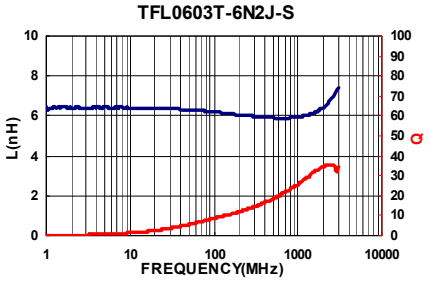
RDC<0.5Ω SER:4200MHz IDC>140mA

TFL0603T-5N6J-S



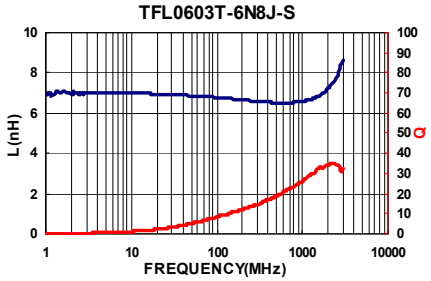
RDC<0.55Ω SER:4000MHz IDC>140mA

TFL0603T-6N2J-S



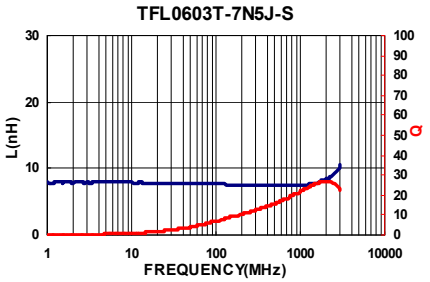
RDC<0.6Ω SER:4000MHz IDC>130mA

TFL0603T-6N8J-S



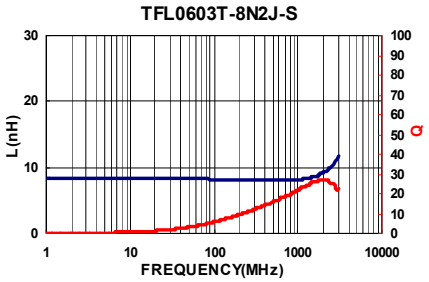
RDC<0.7Ω SER:3900MHz IDC>130mA

TFL0603T-7N5J-S



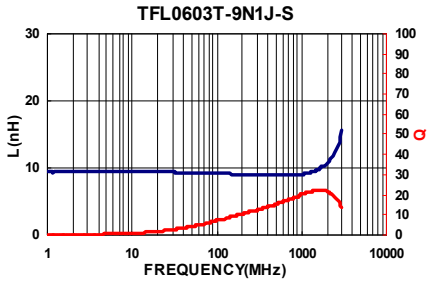
RDC<1.1Ω SER:3700MHz IDC>110mA

TFL0603T-8N2J-S



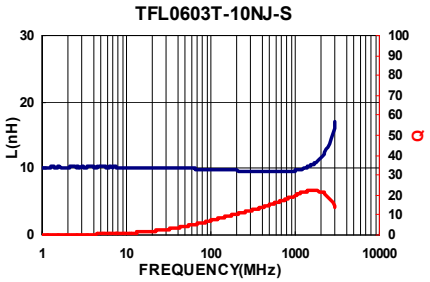
RDC<1.2Ω SER:3600MHz IDC>110mA

TFL0603T-9N1J-S



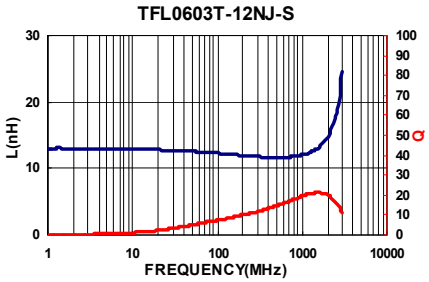
RDC<1.2Ω SER:3300MHz IDC>100mA

TFL0603T-10NJ-S



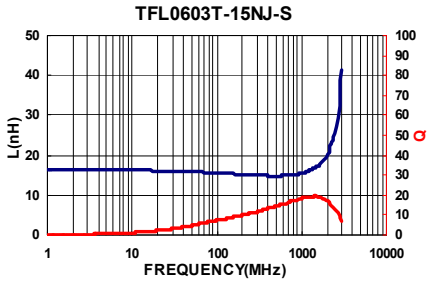
RDC<1.3Ω SER:3200MHz IDC>90mA

TFL0603T-12NJ-S



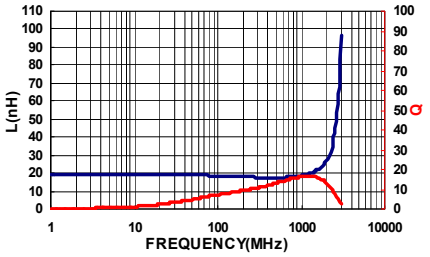
RDC<1.3Ω SER:2900MHz IDC>90mA

TFL0603T-15NJ-S



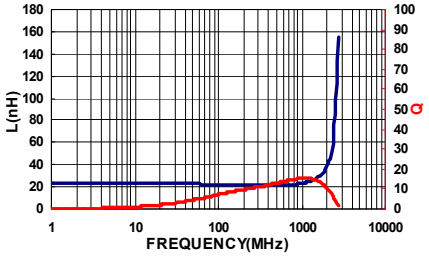
RDC<1.5Ω SER:2600MHz IDC>900mA

TFL0603T-18NJ-S



RDC<1.7Ω SER:2200MHz IDC>80mA

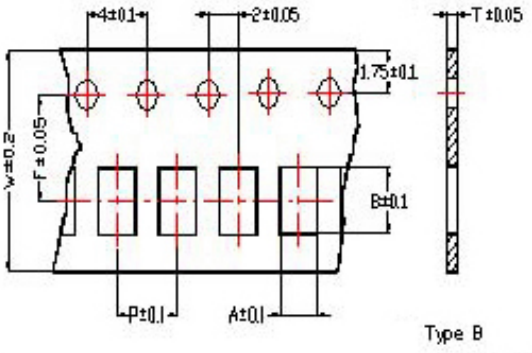
TFL0603T-22NJ-S



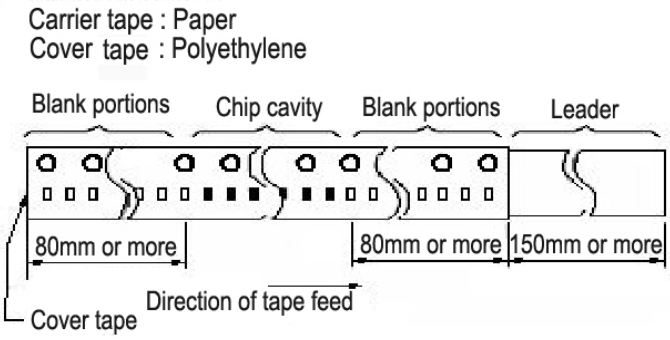
RDC<2.55Ω SER:2200MHz IDC>70mA

Packaging Specifications

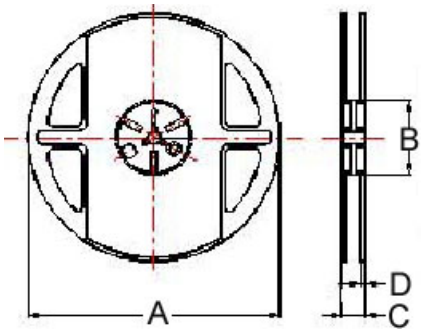
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

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