

## Data Sheet

Customer: \_\_\_\_\_

Product: Multilayer Chip Inductor – SFI Series \_\_\_\_\_

Size : 0201/0402/0603 \_\_\_\_\_

Issued Date: 01-August-2024 \_\_\_\_\_

Edition: Ver. 7 \_\_\_\_\_

### Record of change

Date	Ver.	Description	Page
26-Sep.-2014	1		
26-Apr.-2016	2	Add Hi-Q and Hi-frequency items	
26-May.-2020	3	Revised Hi-Q items	
03-Jun.-2020	4	Revised Hi-Freq. items	
30-June-2022	5	Revised 0402/0603 Hi-Freq. items	
28-April-2023	6	Revised Dimensions & Characteristics / Add 0402 High Q Type	1 ~ 10
1-August-2024	7	Revised Size 0402 High Q Type	7,8

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Prepared by	Checked by	Approved by	Accepted by (customer)
01-August-2024	01-August-2024	01-August-2024	
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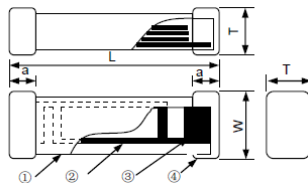
## ◆ Introductions

The SFI series multilayer chip inductors are widely used in high frequency application. Such as cellular phone, WLAN, RF Module, Computers and Communications peripheral.

## ◆ Features

- ◆ Monolithic structure for high reliability
- ◆ High self-resonant frequency
- ◆ Excellent solderability and high heat resistance

## ◆ Construction



①	Ceramic Material	③	Pull Out Electrode
②	Internal Electrode	④	End-termination

## ◆ Dimensions

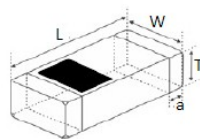


Figure 1

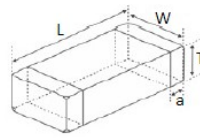


Figure 2

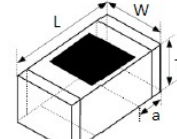


Figure 3

### Standard Type

Unit: mm

Size (inch)	Figure	L	W	T	a
0402 (<12nH)	1	1.00±0.15	0.50±0.15	0.50±0.15	0.25±0.10
0402 (≥12nH)	1 & 2	1.00±0.15	0.50±0.15	0.50±0.15	0.25±0.10
0603 (<560nH)	2	1.60±0.20	0.80±0.20	0.80±0.20	0.30±0.20
0603 (≥560nH)	2	1.65±0.20	0.80±0.20	0.80±0.20	0.30±0.20

### High Q Type

Unit: mm

Size (inch)	Figure	L	W	T	a
0201	1	0.60±0.05	0.30±0.05	0.30±0.05	0.15±0.05
0402	3	1.00±0.15	0.50±0.15	0.50±0.15	0.25±0.10

### High Frequency Type

Unit: mm

Size (inch)	Figure	L	W	T	a
0402	2	1.00±0.15	0.50±0.15	0.50±0.15	0.25±0.10
0603	2	1.60±0.15	0.80±0.15	0.80±0.15	0.30±0.20

## ◆ Part Numbering

SFI SERIES	0603 SIZE	C TYPE	T PACKAGE	3N3 INDUCTANCE	J TOLERANCE	□□ INTERNAL CODE
	0201	C = Standard	T= Tape&Reel	N30= 0.3nH	B= ±0.10nH	
	0402	Q = High Q		3N3= 3.3nH	C= ±0.20nH	
	0603	H = High Frequency		33N= 33nH	S=±0.30nH	
				R33= 0.33uH	G=±2%	
					H= ±3%	
					J= ±5%	

# MULTILAYER CHIP INDUCTOR

# SFI SERIES

■ Size 0402 Standard Type

Part No.	Inductance (nH)	Tolerance	Q Factor Min.	Test Freq. (MHz)	Test Vol. (mV)	SRF (GHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
SFI0402CT1N0□□□	1.0	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	10.00	0.06	1000
SFI0402CT1N1□□□	1.1	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	10.00	0.07	1000
SFI0402CT1N2□□□	1.2	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	10.00	0.07	1000
SFI0402CT1N3□□□	1.3	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	10.00	0.07	1000
SFI0402CT1N5□□□	1.5	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.08	1000
SFI0402CT1N6□□□	1.6	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.08	1000
SFI0402CT1N8□□□	1.8	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.08	900
SFI0402CT2N0□□□	2.0	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.09	900
SFI0402CT2N2□□□	2.2	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.09	900
SFI0402CT2N4□□□	2.4	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.10	800
SFI0402CT2N7□□□	2.7	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.12	800
SFI0402CT3N0□□□	3.0	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.12	800
SFI0402CT3N3□□□	3.3	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.13	800
SFI0402CT3N6□□□	3.6	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	4.00	0.15	700
SFI0402CT3N9□□□	3.9	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	4.00	0.16	700
SFI0402CT4N3□□□	4.3	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	4.00	0.16	700
SFI0402CT4N7□□□	4.7	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	4.00	0.16	700
SFI0402CT5N1□□□	5.1	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	4.00	0.16	600
SFI0402CT5N6□□□	5.6	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	4.00	0.20	600
SFI0402CT6N2□□□	6.2	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	3.90	0.20	600
SFI0402CT6N8□□□	6.8	±3%, ±5%	8	100	50	3.90	0.20	600
SFI0402CT7N5□□□	7.5	±3%, ±5%	8	100	50	3.70	0.24	500
SFI0402CT8N2□□□	8.2	±3%, ±5%	8	100	50	3.60	0.24	500
SFI0402CT9N1□□□	9.1	±3%, ±5%	8	100	50	3.40	0.26	500
SFI0402CT10N□□□	10	±3%, ±5%	8	100	50	3.20	0.26	500
SFI0402CT12N□□□	12	±3%, ±5%	8	100	50	2.70	0.50	400
SFI0402CT15N□□□	15	±3%, ±5%	8	100	50	2.30	0.50	400
SFI0402CT18N□□□	18	±3%, ±5%	8	100	50	2.10	0.60	350
SFI0402CT20N□□□	20	±3%, ±5%	8	100	50	2.00	0.60	350
SFI0402CT22N□□□	22	±3%, ±5%	8	100	50	1.90	0.60	350
SFI0402CT27N□□□	27	±3%, ±5%	8	100	50	1.60	0.70	300
SFI0402CT33N□□□	33	±3%, ±5%	8	100	50	1.30	0.80	300
SFI0402CT39N□□□	39	±3%, ±5%	8	100	50	1.20	1.00	250
SFI0402CT43N□□□	43	±3%, ±5%	8	100	50	1.10	1.10	250
SFI0402CT47N□□□	47	±3%, ±5%	8	100	50	1.00	1.10	250
SFI0402CT56N□□□	56	±3%, ±5%	8	100	50	0.75	1.20	200
SFI0402CT68N□□□	68	±3%, ±5%	8	100	50	0.75	1.40	200
SFI0402CT82N□□□	82	±3%, ±5%	8	100	50	0.75	1.60	200
SFI0402CTR10□□□	100	±3%, ±5%	8	100	50	0.70	2.00	200
SFI0402CTR12□□□	120	±3%, ±5%	8	100	50	0.60	2.50	150
SFI0402CTR15□□□	150	±3%, ±5%	8	100	50	0.55	3.00	150
SFI0402CTR18□□□	180	±3%, ±5%	8	100	50	0.50	3.50	150
SFI0402CTR22□□□	220	±3%, ±5%	8	100	50	0.45	3.70	100
SFI0402CTR27□□□	270	±3%, ±5%	8	100	50	0.40	4.50	100
SFI0402CTR33□□□	330	±3%, ±5%	6	50	50	0.35	5.00	80
SFI0402CTR36□□□	360	±3%, ±5%	6	50	50	0.30	6.00	80

\*\*\* Operating Temperature Range : -55°C ~ +125°C

# MULTILAYER CHIP INDUCTOR

# SFI SERIES

■ Size 0603 Standard Type

Part No.	Inductance (nH)	Tolerance	Q Factor Min.	Test Freq. (MHz)	Test Voltage (mV)	SRF (GHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
SFI0603CT1N0□□	1.0	±0.3nH	8	100	50	10.00	0.05	500
SFI0603CT1N2□□	1.2	±0.3nH	8	100	50	10.00	0.05	500
SFI0603CT1N5□□	1.5	±0.3nH	8	100	50	6.00	0.10	500
SFI0603CT1N8□□	1.8	±0.3nH	8	100	50	6.00	0.10	500
SFI0603CT2N0□□	2.0	±0.3nH	8	100	50	6.00	0.10	500
SFI0603CT2N2□□	2.2	±0.3nH	8	100	50	6.00	0.10	500
SFI0603CT2N4□□	2.4	±0.3nH	8	100	50	6.00	0.12	500
SFI0603CT2N7□□	2.7	±0.3nH	10	100	50	6.00	0.12	500
SFI0603CT3N3□□	3.3	±0.3nH	10	100	50	6.00	0.15	500
SFI0603CT3N6□□	3.6	±0.3nH	10	100	50	6.00	0.16	500
SFI0603CT3N9□□	3.9	±0.3nH	10	100	50	6.00	0.16	500
SFI0603CT4N3□□	4.3	±0.3nH	10	100	50	6.00	0.18	500
SFI0603CT4N7□□	4.7	±0.3nH	10	100	50	6.00	0.20	500
SFI0603CT5N1□□	5.1	±0.3nH	10	100	50	5.50	0.25	500
SFI0603CT5N6□□	5.6	±0.3nH	10	100	50	5.00	0.25	500
SFI0603CT6N8□□	6.8	±5%, ±10%	10	100	50	5.00	0.30	500
SFI0603CT7N5□□	7.5	±5%, ±10%	10	100	50	4.50	0.35	500
SFI0603CT8N2□□	8.2	±5%, ±10%	10	100	50	4.50	0.35	500
SFI0603CT9N1□□	9.1	±5%, ±10%	10	100	50	3.50	0.40	500
SFI0603CT10N□□	10	±5%, ±10%	12	100	50	3.50	0.40	300
SFI0603CT12N□□	12	±5%, ±10%	12	100	50	3.00	0.45	300
SFI0603CT15N□□	15	±5%, ±10%	12	100	50	2.30	0.50	300
SFI0603CT18N□□	18	±5%, ±10%	12	100	50	2.20	0.55	300
SFI0603CT22N□□	22	±5%, ±10%	12	100	50	2.00	0.60	300
SFI0603CT24N□□	24	±5%, ±10%	12	100	50	2.00	0.60	300
SFI0603CT27N□□	27	±5%, ±10%	12	100	50	1.70	0.65	300
SFI0603CT33N□□	33	±5%, ±10%	12	100	50	1.50	0.70	300
SFI0603CT36N□□	36	±5%, ±10%	12	100	50	1.40	0.70	300
SFI0603CT39N□□	39	±5%, ±10%	12	100	50	1.40	0.70	300
SFI0603CT47N□□	47	±5%, ±10%	12	100	50	1.20	0.70	300
SFI0603CT56N□□	56	±5%, ±10%	12	100	50	1.10	0.75	300
SFI0603CT68N□□	68	±5%, ±10%	12	100	50	0.90	0.85	300
SFI0603CT82N□□	82	±5%, ±10%	8	100	50	0.80	1.00	300
SFI0603CTR10□□	100	±5%, ±10%	8	100	50	0.70	1.20	300
SFI0603CTR12□□	120	±5%, ±10%	8	50	50	0.60	1.40	200
SFI0603CTR15□□	150	±5%, ±10%	8	50	50	0.50	1.60	200
SFI0603CTR18□□	180	±5%, ±10%	8	50	50	0.40	1.90	200
SFI0603CTR22□□	220	±5%, ±10%	8	50	50	0.35	2.40	200
SFI0603CTR27□□	270	±5%, ±10%	8	50	50	0.35	2.60	150
SFI0603CTR33□□	330	±5%, ±10%	8	50	50	0.35	2.80	150
SFI0603CTR39□□	390	±5%, ±10%	8	50	50	0.30	3.20	150
SFI0603CTR43□□	430	±5%, ±10%	8	50	50	0.28	3.40	150
SFI0603CTR47□□	470	±5%, ±10%	8	50	50	0.25	3.60	150
SFI0603CTR56□□	560	3%, ±5%	8	50	-	0.25	4.00	100
SFI0603CTR68□□	680	3%, ±5%	8	50	-	0.25	4.50	100

\*\*\* Operating Temperature Range : -40°C ~ +85°C

# MULTILAYER CHIP INDUCTOR

# SFI SERIES

## ◆ Size 0402 High Frequency Type

Part No.	Inductance (nH)	Tolerance	Quality Factor Min	L/Q Freq. (MHz)	Q(Typical) / Frequency(MHz)						SRF (GHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
					100	300	500	800	1000	1800			
SFI0402HT1N0□□	1.0	±0.3nH	5	100	9	16	20	25	28	31	>8.50	0.10	500
SFI0402HT1N2□□	1.2	±0.3nH	5	100	9	15	18	24	27	31	>8.50	0.12	500
SFI0402HT1N5□□	1.5	±0.3nH	5	100	7	12	16	20	21	29	>8.50	0.15	500
SFI0402HT1N8□□	1.8	±0.3nH	5	100	7	12	16	20	21	29	>8.50	0.17	500
SFI0402HT2N2□□	2.2	±0.3nH	5	100	7	12	16	20	21	30	>8.50	0.17	500
SFI0402HT2N7□□	2.7	±0.3nH	5	100	7	12	16	20	21	29	>8.50	0.20	500
SFI0402HT3N3□□	3.3	±0.3nH	5	100	7	12	15	19	20	27	>8.50	0.22	400
SFI0402HT3N9□□	3.9	±0.3nH	5	100	7	12	15	20	21	28	7.50	0.25	400
SFI0402HT4N7□□	4.7	±0.3nH	5	100	7	12	15	19	20	27	6.50	0.28	400
SFI0402HT5N6□□	5.6	±0.3nH	5	100	8	12	15	20	22	30	6.50	0.30	400
SFI0402HT6N8□□	6.8	±5%, ±10%	5	100	8	12	15	20	22	30	6.50	0.35	400
SFI0402HT8N2□□	8.2	±5%, ±10%	5	100	8	12	15	19	21	30	6.50	0.38	350
SFI0402HT10N□□	10	±5%, ±10%	5	100	8	13	16	21	23	32	4.70	0.42	350
SFI0402HT12N□□	12	±5%, ±10%	5	100	8	13	16	20	23	27	4.30	0.47	350
SFI0402HT15N□□	15	±5%, ±10%	5	100	8	12	15	19	22	28	4.00	0.50	300
SFI0402HT18N□□	18	±5%, ±10%	5	100	8	13	16	21	24	32	4.00	0.60	250
SFI0402HT22N□□	22	±5%, ±10%	5	100	8	13	17	22	26	31	3.50	0.70	200
SFI0402HT27N□□	27	±5%, ±10%	5	100	8	14	18	23	26	32	3.00	0.80	200
SFI0402HT33N□□	33	±5%, ±10%	5	100	8	14	17	23	27	32	2.50	0.90	200
SFI0402HT39N□□	39	±5%, ±10%	5	100	8	14	18	23	27	32	2.00	1.00	200
SFI0402HT47N□□	47	±5%, ±10%	7	100	9	14	18	22	24	29	2.40	2.20	100
SFI0402HT56N□□	56	±5%, ±10%	7	100	9	14	18	23	24	29	2.30	2.50	100
SFI0402HT68N□□	68	±5%, ±10%	7	100	9	14	17	22	24	29	2.20	2.70	100
SFI0402HT82N□□	82	±5%, ±10%	7	100	8	13	17	20	20	16	2.10	2.90	100
SFI0402HTR10□□	100	±5%, ±10%	7	100	8	13	17	20	20	13	2.00	3.20	100

\*\*\* Operating Temperature Range : -55°C ~ +125°C

# MULTILAYER CHIP INDUCTOR

# SFI SERIES

◆ Size 0603 High Frequency Type

Part No.	Inductance (nH)	Tolerance	Quality Factor Min.	L/Q Freq (MHz)	Q(Typical) / Freq.(MHz)						SRF (GHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
					100	300	500	800	1000	1800			
SFI0603HT10N□□	10	±5%	8	100	10	22	28	35	39	45	>6.00	0.6	500
SFI0603HT12N□□	12	±5%	8	100	10	18	23	26	32	42	6.00	0.7	500
SFI0603HT15N□□	15	±5%	8	100	12	22	28	35	39	42	5.50	0.8	500
SFI0603HT18N□□	18	±5%	8	100	10	18	22	25	30	43	5.20	0.9	300
SFI0603HT22N□□	22	±5%	8	100	12	21	27	34	37	37	5.00	1.0	300
SFI0603HT27N□□	27	±5%	8	100	10	18	24	26	32	38	4.80	1.2	300
SFI0603HT33N□□	33	±5%	8	100	12	21	27	33	35	31	4.50	1.4	300
SFI0603HT39N□□	39	±5%	8	100	11	20	26	32	34	29	4.00	1.5	200
SFI0603HT47N□□	47	±5%	8	100	12	20	26	31	34	27	3.50	1.6	200
SFI0603HT56N□□	56	±5%	8	100	11	20	26	31	34	24	3.00	1.8	200
SFI0603HT68N□□	68	±5%	8	100	10	18	21	24	28	20	2.80	2.0	200
SFI0603HT82N□□	82	±5%	8	100	10	19	22	26	26	15	2.50	2.2	200
SFI0603HTR10□□	100	±5%	8	100	10	19	24	27	25	-	2.00	2.5	150
SFI0603HTR12□□	120	±5%	8	100	10	19	23	26	24	-	1.60	2.8	150
SFI0603HTR15□□	150	±5%	8	100	10	18	24	26	23	-	1.40	3.0	150
SFI0603HTR18□□	180	±5%	8	100	10	17	22	23	-	-	1.00	3.4	150

\*\*\* Operating Temperature Range : -40°C ~ +85°C

# MULTILAYER CHIP INDUCTOR

# SFI SERIES

◆ Size 0201 High Q Type

Part No.	Inductance (nH)	Tolerance	Quality Factor Min.	Test Frequency (MHz)	Test Voltage (mV)	SRF (GHz) Min.	RDC (Ω) Max.	Rated Current (mA) Max.
SFI0201QTN60□□□	0.6	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	10.00	0.05	1000
SFI0201QTN70□□□	0.7	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	10.00	0.05	1000
SFI0201QTN80□□□	0.8	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	10.00	0.06	1000
SFI0201QTN90□□□	0.9	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	10.00	0.06	800
SFI0201QT1N0□□□	1.0	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	10.00	0.07	800
SFI0201QT1N1□□□	1.1	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	10.00	0.07	800
SFI0201QT1N2□□□	1.2	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	10.00	0.10	800
SFI0201QT1N3□□□	1.3	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	10.00	0.10	700
SFI0201QT1N4□□□	1.4	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	10.00	0.10	700
SFI0201QT1N5□□□	1.5	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	10.00	0.10	650
SFI0201QT1N6□□□	1.6	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	10.00	0.10	650
SFI0201QT1N7□□□	1.7	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	10.00	0.10	650
SFI0201QT1N8□□□	1.8	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	9.00	0.15	650
SFI0201QT2N0□□□	2.0	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	8.50	0.15	650
SFI0201QT2N2□□□	2.2	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	7.50	0.15	650
SFI0201QT2N4□□□	2.4	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	7.50	0.15	550
SFI0201QT2N6□□□	2.6	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	7.50	0.20	550
SFI0201QT2N7□□□	2.7	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	7.50	0.20	550
SFI0201QT2N8□□□	2.8	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	7.50	0.20	500
SFI0201QT3N0□□□	3.0	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	7.50	0.20	450
SFI0201QT3N3□□□	3.3	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	7.50	0.25	450
SFI0201QT3N6□□□	3.6	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	6.50	0.25	400
SFI0201QT3N9□□□	3.9	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	6.50	0.25	400
SFI0201QT4N3□□□	4.3	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	6.00	0.35	350
SFI0201QT4N7□□□	4.7	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	6.00	0.40	350
SFI0201QT5N1□□□	5.1	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	5.50	0.40	350
SFI0201QT5N6□□□	5.6	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	5.00	0.40	350
SFI0201QT6N2□□□	6.2	±0.1nH, ±0.2nH, ±0.3nH	14	500	50	5.00	0.40	300
SFI0201QT6N8□□□	6.8	±3%, ±5%	14	500	50	4.50	0.50	300
SFI0201QT7N5□□□	7.5	±3%, ±5%	14	500	50	4.00	0.50	300
SFI0201QT8N2□□□	8.2	±3%, ±5%	14	500	50	4.00	0.50	250
SFI0201QT9N1□□□	9.1	±3%, ±5%	14	500	50	4.00	0.70	250
SFI0201QT10N□□□	10	±3%, ±5%	14	500	50	4.00	0.70	250
SFI0201QT12N□□□	12	±3%, ±5%	13	500	50	3.50	0.70	250
SFI0201QT15N□□□	15	±3%, ±5%	13	500	50	3.20	0.85	250
SFI0201QT18N□□□	18	±3%, ±5%	13	500	50	3.00	1.00	200
SFI0201QT20N□□□	20	±3%, ±5%	13	500	50	2.20	1.10	150
SFI0201QT22N□□□	22	±3%, ±5%	13	500	50	2.20	1.20	150
SFI0201QT27N□□□	27	±3%, ±5%	13	500	50	2.20	1.50	140
SFI0201QT33N□□□	33	±3%, ±5%	12	300	50	1.80	1.80	120
SFI0201QT36N□□□	36	±3%, ±5%	12	300	50	1.70	2.00	120
SFI0201QT39N□□□	39	±3%, ±5%	12	300	50	1.60	2.00	120
SFI0201QT43N□□□	43	±3%, ±5%	12	300	50	1.60	2.20	100
SFI0201QT47N□□□	47	±3%, ±5%	12	300	50	1.50	2.20	100
SFI0201QT56N□□□	56	±3%, ±5%	12	300	50	1.20	2.50	100
SFI0201QT68N□□□	68	±3%, ±5%	12	300	50	1.00	3.20	100
SFI0201QT75N□□□	75	±3%, ±5%	11	300	50	1.00	3.60	100
SFI0201QT82N□□□	82	±3%, ±5%	11	300	50	1.00	3.80	100
SFI0201QT91N□□□	91	±3%, ±5%	11	300	50	0.90	3.80	80
SFI0201QTR10□□□	100	±3%, ±5%	11	300	50	0.80	4.00	80
SFI0201QTR12□□□	120	±3%, ±5%	10	300	50	0.80	5.00	80

\*\*\* Operating Temperature: -55°C ~ +125°C

# MULTILAYER CHIP INDUCTOR

# SFI SERIES

◆ Size 0402 High Q Type

Part No.	Inductance (nH)	Tolerance	L Test Frequency (MHz)	Q min.	Q Test Frequency (MHz)	Test Voltage (mV)	SRF (MHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
SFI0402QTN60000	0.6	±0.1, ±0.2, ±0.3nH	100	-	250	50	15000	0.01	1200
SFI0402QTN70000	0.7	±0.1, ±0.2, ±0.3nH	100	-	250	50	15000	0.02	1200
SFI0402QTN80000	0.8	±0.1, ±0.2, ±0.3nH	100	-	250	50	15000	0.02	1200
SFI0402QTN90000	0.9	±0.1, ±0.2, ±0.3nH	100	-	250	50	15000	0.03	1200
SFI0402QT1N0000	1.0	±0.1, ±0.2, ±0.3nH	100	23	250	50	15000	0.03	1200
SFI0402QT1N1000	1.1	±0.1, ±0.2, ±0.3nH	100	23	250	50	14000	0.03	1200
SFI0402QT1N2000	1.2	±0.1, ±0.2, ±0.3nH	100	23	250	50	13000	0.03	1200
SFI0402QT1N3000	1.3	±0.1, ±0.2, ±0.3nH	100	23	250	50	12000	0.03	1200
SFI0402QT1N4000	1.4	±0.1, ±0.2, ±0.3nH	100	23	250	50	13000	0.04	1200
SFI0402QT1N5000	1.5	±0.1, ±0.2, ±0.3nH	100	23	250	50	11000	0.04	1000
SFI0402QT1N6000	1.6	±0.1, ±0.2, ±0.3nH	100	23	250	50	10000	0.04	1000
SFI0402QT1N7000	1.7	±0.1, ±0.2, ±0.3nH	100	23	250	50	10000	0.04	1000
SFI0402QT1N8000	1.8	±0.1, ±0.2, ±0.3nH	100	23	250	50	9000	0.04	1000
SFI0402QT1N9000	1.9	±0.1, ±0.2, ±0.3nH	100	23	250	50	8000	0.05	1000
SFI0402QT2N0000	2.0	±0.1, ±0.2, ±0.3nH	100	23	250	50	8000	0.05	1000
SFI0402QT2N1000	2.1	±0.1, ±0.2, ±0.3nH	100	23	250	50	8000	0.06	1000
SFI0402QT2N2000	2.2	±0.1, ±0.2, ±0.3nH	100	23	250	50	8000	0.06	1000
SFI0402QT2N3000	2.3	±0.1, ±0.2, ±0.3nH	100	23	250	50	7000	0.07	1000
SFI0402QT2N4000	2.4	±0.1, ±0.2, ±0.3nH	100	23	250	50	6500	0.07	1000
SFI0402QT2N5000	2.5	±0.1, ±0.2, ±0.3nH	100	23	250	50	6500	0.06	900
SFI0402QT2N6000	2.6	±0.1, ±0.2, ±0.3nH	100	23	250	50	6500	0.07	900
SFI0402QT2N7000	2.7	±0.1, ±0.2, ±0.3nH	100	23	250	50	6500	0.07	900
SFI0402QT2N8000	2.8	±0.1, ±0.2, ±0.3nH	100	23	250	50	6500	0.07	900
SFI0402QT2N9000	2.9	±0.1, ±0.2, ±0.3nH	100	23	250	50	6500	0.08	900
SFI0402QT3N0000	3.0	±0.1, ±0.2, ±0.3nH	100	23	250	50	6000	0.09	900
SFI0402QT3N1000	3.1	±0.1, ±0.2, ±0.3nH	100	23	250	50	6000	0.09	900
SFI0402QT3N2000	3.2	±0.1, ±0.2, ±0.3nH	100	23	250	50	6000	0.09	900
SFI0402QT3N3000	3.3	±0.1, ±0.2, ±0.3nH	100	23	250	50	6000	0.08	900
SFI0402QT3N4000	3.4	±0.1, ±0.2, ±0.3nH	100	23	250	50	6000	0.09	900
SFI0402QT3N5000	3.5	±0.1, ±0.2, ±0.3nH	100	23	250	50	5800	0.09	900
SFI0402QT3N6000	3.6	±0.1, ±0.2, ±0.3nH	100	23	250	50	5500	0.09	900
SFI0402QT3N7000	3.7	±0.1, ±0.2, ±0.3nH	100	23	250	50	5500	0.10	900
SFI0402QT3N8000	3.8	±0.1, ±0.2, ±0.3nH	100	23	250	50	5000	0.10	900
SFI0402QT3N9000	3.9	±0.1, ±0.2, ±0.3nH	100	23	250	50	5000	0.09	800
SFI0402QT4N1000	4.1	±0.1, ±0.2, ±0.3nH	100	23	250	50	5000	0.10	800
SFI0402QT4N3000	4.3	±0.1, ±0.2, ±0.3nH	100	23	250	50	5000	0.10	800
SFI0402QT4N7000	4.7	±0.1, ±0.2, ±0.3nH	100	23	250	50	5000	0.11	800
SFI0402QT4N9000	4.9	±0.1, ±0.2, ±0.3nH	100	23	250	50	5000	0.11	800
SFI0402QT5N1000	5.1	±0.1, ±0.2, ±0.3nH	100	23	250	50	4500	0.12	800
SFI0402QT5N4000	5.4	±0.1, ±0.2, ±0.3nH	100	23	250	50	4500	0.13	800
SFI0402QT5N6000	5.6	±0.1, ±0.2, ±0.3nH	100	23	250	50	4500	0.13	800
SFI0402QT5N8000	5.8	±0.1, ±0.2, ±0.3nH	100	23	250	50	4000	0.13	700
SFI0402QT6N0000	6.0	±0.1, ±0.2, ±0.3nH	100	23	250	50	4000	0.13	700
SFI0402QT6N2000	6.2	±0.1, ±0.2, ±0.3nH	100	23	250	50	4000	0.13	700
SFI0402QT6N5000	6.5	±2, ±3, ±5%	100	23	250	50	4000	0.14	700
SFI0402QT6N8000	6.8	±2, ±3, ±5%	100	23	250	50	4000	0.14	700
SFI0402QT7N3000	7.3	±2, ±3, ±5%	100	23	250	50	4000	0.16	600
SFI0402QT7N5000	7.5	±2, ±3, ±5%	100	23	250	50	4000	0.16	600
SFI0402QT8N2000	8.2	±2, ±3, ±5%	100	23	250	50	3600	0.16	550
SFI0402QT8N7000	8.7	±2, ±3, ±5%	100	23	250	50	3500	0.17	550
SFI0402QT9N1000	9.1	±2, ±3, ±5%	100	23	250	50	3400	0.17	550
SFI0402QT9N5000	9.5	±2, ±3, ±5%	100	23	250	50	3300	0.21	500
SFI0402QT10N000	10	±2, ±3, ±5%	100	23	250	50	3300	0.19	500
SFI0402QT11N000	11	±2, ±3, ±5%	100	23	250	50	3000	0.22	450
SFI0402QT12N000	12	±2, ±3, ±5%	100	23	250	50	2800	0.24	450
SFI0402QT13N000	13	±2, ±3, ±5%	100	23	250	50	2800	0.26	400
SFI0402QT15N000	15	±2, ±3, ±5%	100	23	250	50	2300	0.28	400



# MULTILAYER CHIP INDUCTOR

# SFI SERIES

◆ Size 0402 High Q Type

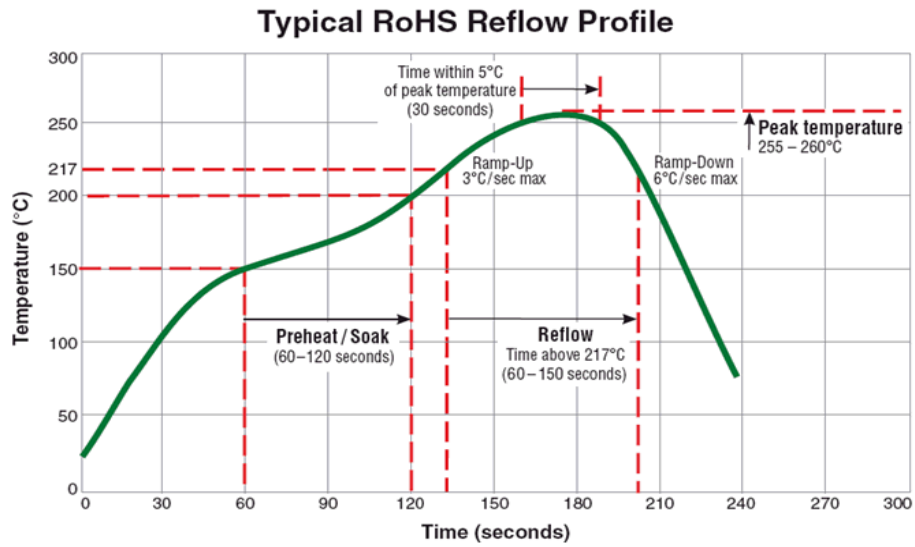
Part No.	Inductance (nH)	Tolerance	L Test Frequency (MHz)	Q min.	Q Test Frequency (MHz)	Test Voltage (mV)	SRF (MHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
SFI0402QT16N□□□	16	±2, ±3, ±5%	100	20	250	50	2300	0.80	260
SFI0402QT18N□□□	18	±2, ±3, ±5%	100	20	250	50	2300	0.80	260
SFI0402QT19N□□□	19	±2, ±3, ±5%	100	20	250	50	2300	0.80	260
SFI0402QT20N□□□	20	±2, ±3, ±5%	100	20	250	50	2100	1.10	260
SFI0402QT22N□□□	22	±2, ±3, ±5%	100	20	250	50	2100	1.10	230
SFI0402QT23N□□□	23	±2, ±3, ±5%	100	20	250	50	2000	1.10	230
SFI0402QT24N□□□	24	±2, ±3, ±5%	100	20	250	50	2000	1.20	230
SFI0402QT27N□□□	27	±2, ±3, ±5%	100	20	250	50	1700	1.30	230
SFI0402QT30N□□□	30	±2, ±3, ±5%	100	20	250	50	1700	1.30	220
SFI0402QT33N□□□	33	±2, ±3, ±5%	100	20	250	50	1600	1.50	220
SFI0402QT36N□□□	36	±2, ±3, ±5%	100	20	250	50	1600	1.50	190
SFI0402QT39N□□□	39	±2, ±3, ±5%	100	20	250	50	1400	1.50	190
SFI0402QT40N□□□	40	±2, ±3, ±5%	100	20	250	50	1400	1.50	190
SFI0402QT43N□□□	43	±2, ±3, ±5%	100	22	250	50	1400	1.60	190
SFI0402QT47N□□□	47	±2, ±3, ±5%	100	22	250	50	1300	1.60	190
SFI0402QT51N□□□	51	±2, ±3, ±5%	100	22	250	50	1300	1.80	190
SFI0402QT56N□□□	56	±2, ±3, ±5%	100	22	250	50	1200	1.80	180
SFI0402QT62N□□□	62	±2, ±3, ±5%	100	22	250	50	1100	1.90	180
SFI0402QT68N□□□	68	±2, ±3, ±5%	100	22	250	50	1100	2.00	160
SFI0402QT72N□□□	72	±2, ±3, ±5%	100	22	250	50	1100	2.20	160
SFI0402QT75N□□□	75	±2, ±3, ±5%	100	22	250	50	1100	2.20	160
SFI0402QT82N□□□	82	±2, ±3, ±5%	100	22	250	50	900	2.30	160
SFI0402QT91N□□□	91	±2, ±3, ±5%	100	22	250	50	900	2.30	160
SFI0402QTR10□□□	100	±2, ±3, ±5%	100	22	250	50	900	2.50	150
SFI0402QTR11□□□	110	±2, ±3, ±5%	100	22	250	50	800	2.70	150
SFI0402QTR12□□□	120	±2, ±3, ±5%	100	22	250	50	800	2.70	140
SFI0402QTR13□□□	130	±2, ±3, ±5%	100	22	250	50	800	3.00	110
SFI0402QTR15□□□	150	±2, ±3, ±5%	100	22	250	50	800	3.00	110
SFI0402QTR16□□□	160	±2, ±3, ±5%	100	22	250	50	700	5.80	90
SFI0402QTR18□□□	180	±2, ±3, ±5%	100	18	250	50	600	6.00	90
SFI0402QTR20□□□	200	±2, ±3, ±5%	100	18	250	50	600	6.20	80
SFI0402QTR22□□□	220	±2, ±3, ±5%	100	18	250	50	600	6.60	80
SFI0402QTR24□□□	240	±2, ±3, ±5%	100	18	250	50	600	6.80	80
SFI0402QTR27□□□	270	±2, ±3, ±5%	100	18	250	50	600	7.00	80
SFI0402QTR30□□□	300	±2, ±3, ±5%	50	13	100	50	480	7.80	80
SFI0402QTR33□□□	330	±2, ±3, ±5%	50	13	100	50	480	8.20	80
SFI0402QTR36□□□	360	±2, ±3, ±5%	50	13	100	50	450	8.40	80
SFI0402QTR39□□□	390	±2, ±3, ±5%	50	13	100	50	450	8.80	70
SFI0402QTR43□□□	430	±2, ±3, ±5%	50	13	100	50	380	9.60	70
SFI0402QTR47□□□	470	±2, ±3, ±5%	50	13	100	50	380	9.60	70
SFI0402QTR51□□□	510	±2, ±3, ±5%	50	13	100	50	360	10.2	70
SFI0402QTR56□□□	560	±2, ±3, ±5%	50	13	100	50	360	10.6	70

\*\*\* Operating Temperature: -55°C ~ +125°C

\*\*\* L/Q testing equipment: Keysight E4991B+16197A.Short bar residual inductance=0.556nH

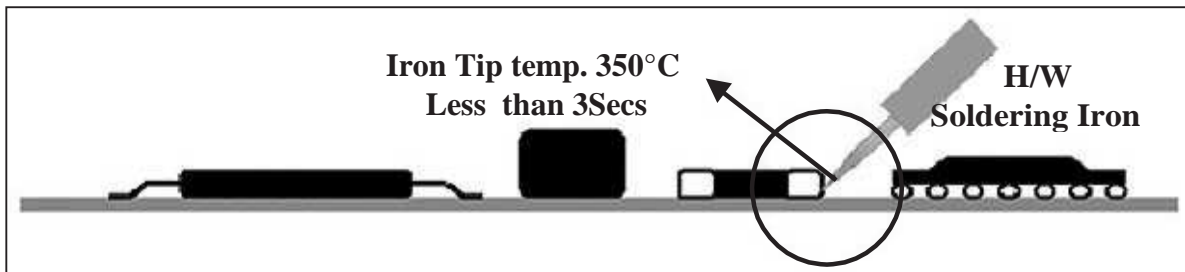
◆ **Soldering Profile**

**Reflow Soldering**



**Manual Soldering**

Soldering iron tip temperature: 350°C max / within 3 seconds.

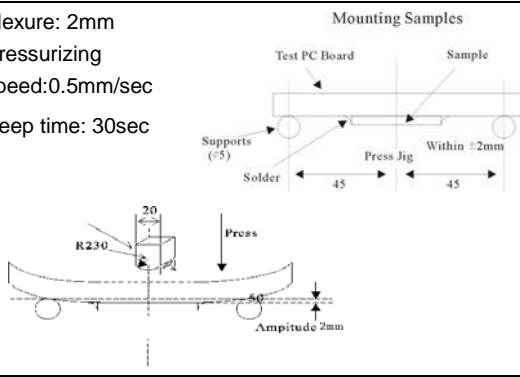


# MULTILAYER CHIP INDUCTOR

# SFI SERIES

## ◆ Environmental Characteristics

### Mechanical Characteristics Test

Item	Requirement	Test Condition
Bending Strength	No mechanical damage shall be observed	Flexure: 2mm Pressurizing speed: 0.5mm/sec Keep time: 30sec 
Solderability	No visible mechanical damage Wetting shall exceed 75% coverage for 0201 series; exceed 95% coverage for others	Solder temperature: 240±2°C Time: 3 seconds Solder: Sn/3.0Ag/0.5Cu Flux: 25% resin and 75% ethanol in weight
Resistance to Soldering Heat	No visible mechanical damage Wetting shall exceed 75% coverage for 0201 series; exceed 95% coverage for others Inductance change: within .10% Q change: within .20%	Solder temperature: 260±3°C Time: 5 seconds Solder: Sn/3.0Ag/0.5Cu Flux: 25% resin and 75% ethanol in weight The chip shall be stabilized at normal condition for 1~2 hours before measuring
Dropping	No visible mechanical damage Inductance change: within .10% Q change: within .20%	Drop chip inductor 10 times on a concrete floor from a height of 100cm

### Electrical Characteristics Test

Item	Requirement	Test Condition
Inductance	In Within specified tolerance	Temperature: 20±1°C Relative Humidity: 45 to 85%RH Atmospheric Pressure: 86 to 106kpa Measuring equipment and fixture: 0201: E4991A+HP16197A 0402/0603: E4991A+HP16192A Test Signal: -20dBm or 50mV Test compensation(for 0201 high Q): Product true value= test value + compensation value. for L<3.6nH, compensation value is 0.25nH; for 3.6nH≤L<6.8nH, compensation value is 0.43nH; for 6.8 nH≤L<9.1nH, compensation value is 0.5nH; for 9.1 nH≤L<33nH, compensation value is 0.85nH; for L≥33nH compensation value is 0.85nH
Q Value	In accordance with electrical specification	Temperature: 20±1°C Relative Humidity: 45 to 85%RH Atmospheric Pressure: 86 to 106kpa
DC Resistance	In accordance with electrical specification	Temperature: 20±1°C Relative Humidity: 45 to 85%RH Atmospheric Pressure: 86 to 106kpa Measuring equipment: HP 4338

# MULTILAYER CHIP INDUCTOR

# SFI SERIES

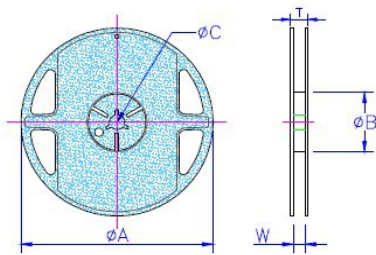
## Climatic Characteristics Test

Item	Requirements	Test Condition
Thermal Shock		0201/0402 series: -55°C for 30±3 min → 125°C for 30±3 min 0603 series: -40°C for 30±3 min → 85°C for 30±3 min Transforming interval: max. 20 seconds Test cycle: 100 cycles The chip shall be stabilized at normal condition for 1~2 hours Before measuring
Resistance to Low Temperature		Temperature: 0201/0402 series: -55±2°C ; 0603 series: -40±2°C Time: 1000±24 hours The chip shall be stabilized at normal condition for 1~2 hours Before measuring
Resistance to High Temperature	No visible damage Inductance variation within 10% Q variation within 20%	Temperature: 0201/0402 series: 125±2°C ; 0603 series: 85±2°C Time: 1000±24 hours The chip shall be stabilized at normal condition for 1~2 hours Before measuring
Damp Heat (Steady States)		Temperature: 60±2°C Humidity: 90~95% RH. Time: 1000±24 hours The chip shall be stabilized at normal condition for 1~2 hours Before measuring
Loading Under Damp Heat		Temperature: 60±2°C Humidity: 90~95% RH. Time: 1000±24 hours Applied current: Rated current The chip shall be stabilized at normal condition for 1~2 hours Before measuring
Loading at High Temperature (Life Test)		Temperature: 0201/0402 series: 125±2°C ; 0603 series: 85±2°C Time: 1000±24 hours Applied current: Rated current The chip shall be stabilized at normal condition for 1~2 hours Before measuring

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

## ◆ Packaging Specifications

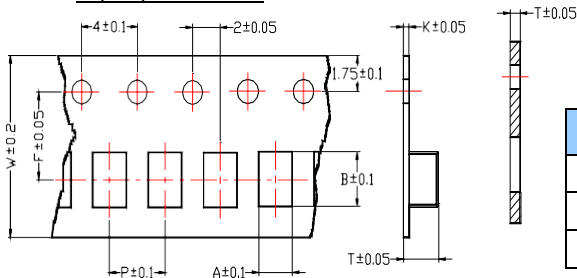
### Reel Dimension



Unit : mm

Size	A	B	C	W	T	Quantity (EA)
0201	178±1	60.0±0.5	13.0±0.20	9.00±0.5	12.0±0.15	15,000
0402	178±2.0	57.0±2.0	12.5±1.5	8.00+1.5/-0	12.0±0.15	10,000
0603	178±1	60.0±0.5	13.0±0.20	9.00±0.5	12.0±0.15	4,000

### Tape Specifications



Unit : mm

Size	A	B	T	W	P	F	K	Tape
0201	0.40	0.70	0.50	8	2	3.5	-	B
0402	0.65	1.15	0.60	8	2	3.5	-	B
0603	1.10	1.80	1.10	8	4	3.5	-	B

Type A

Type B