

## SF Series

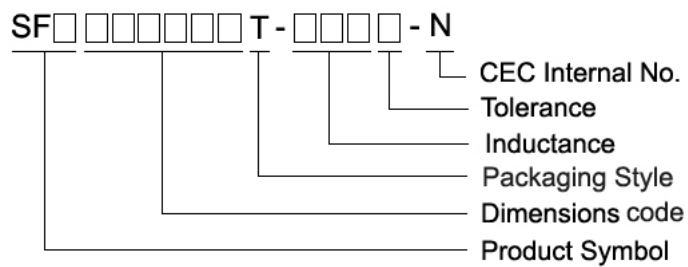
### Features

- Surface mount inductors designed for high speed, high current switch mode applications requiring lower inductance
- Gapped ferrite cores for maximum efficiency
- Inductance values from 0.100 uH to 0.200 uH
- Current up to 64 Amps
- Ferrite core material

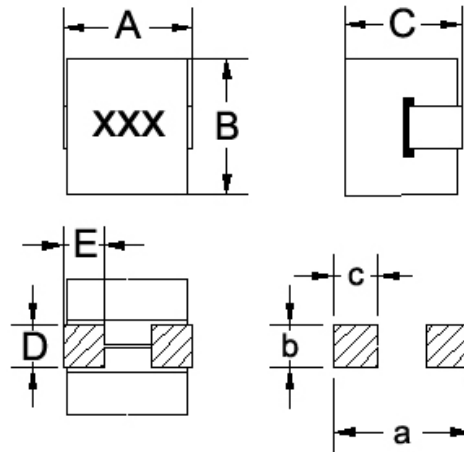
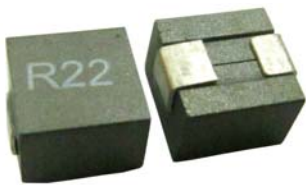
### Applications

- Voltage regulator modules (VRMs) for servers, microprocessors
- High frequency, high current switching power supplies

### Product Identification

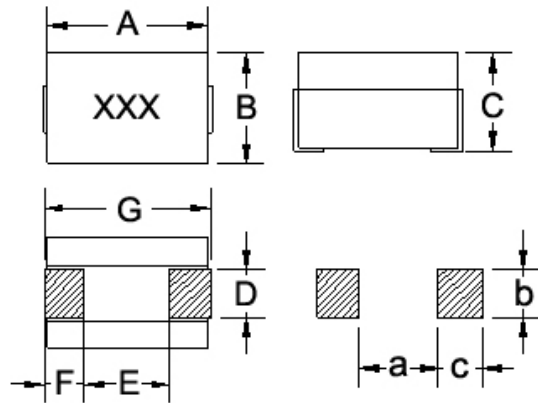


### Shape and Dimensions



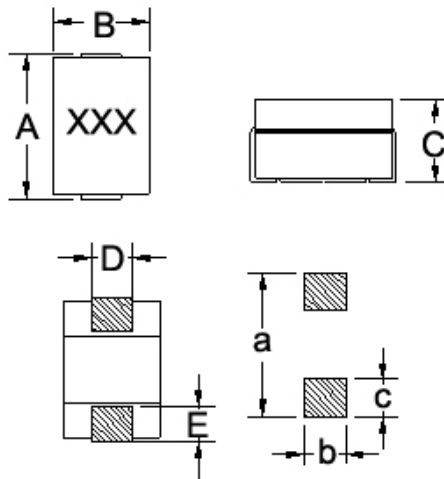
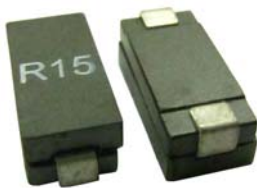
Dimensions in mm

TYPE	A	B	C	D	E	a	b	c
SFC080705	7.7 <sup>+0</sup>	6.9 <sup>+0</sup>	5.0 <sup>+0</sup>	2.8±0.2	1.8 ref	8.0	3.0	2.0



Dimensions in mm

TYPE	A	B	C	D	E	F	G	a	b	c
SFD100707	10±0.2	7.2±0	7.3±0.2	1.8 ref	0.6 ref	2.3 ref	11 <sup>+0</sup>	4.05	2.55	3.55



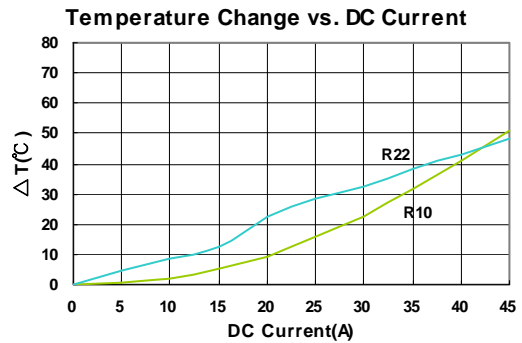
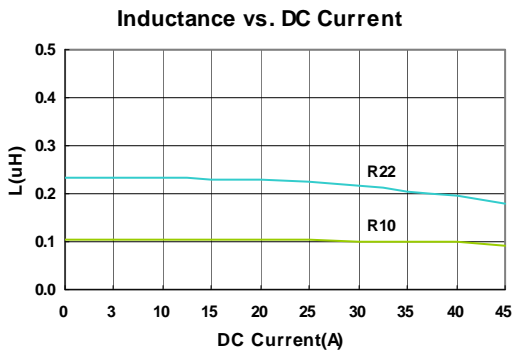
Dimensions in mm

TYPE	A	B	C	D	E	a	b	c
SFE150705	14.7±0.3	6.7±0.3	5.0 <sup>+0</sup>	2.8 ref	2.0 ref	15	4.5	2.5

**Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (KHz)	RDC (mΩ) Max	Isat (A) Max	Irms (A) Max
SFC080705T-R10L-N	0.10	15	100,40mV	1	35	35
SFC080705T-R22L-N	0.22	15	100,40mV	1	22	28

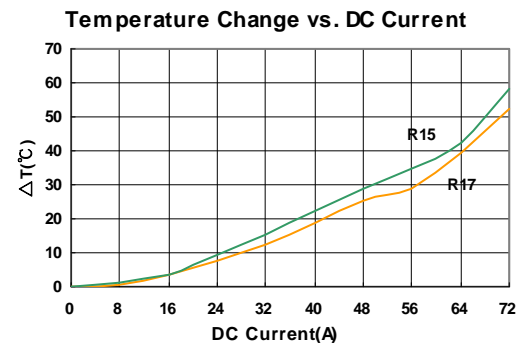
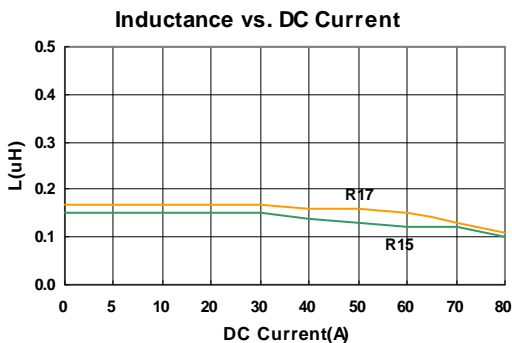
- Customized Specifications are available
- OCL (Open Circuit Inductance) Test parameters: 100KHz, 40mVrms,0Adc & Isat @20°C
- DC current for an approximate ΔT of 40°C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, airflow, and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed 155°C under worst case operating conditions verified in the end application.
- Operating ambient temperature range: -40°C to +155°C(Including self - temperature rise )
- Tested L: WK4237METER RDC:HK502BC METER Isat : WK3260B/ 3265B METER



**Electrical Characteristics**

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (KHz)	RDC (mΩ)	Isat <sup>1</sup> (20°C) (A) Max	Isat <sup>2</sup> (125°C) (A) Max	Irms (A) Max
SFD100707T-R15K-N	0.15	10	100,0.1V	0.29±5%	76	70	61
SFD100707T-R17K-N	0.17	10	100,0.1V	0.29±5%	66	60	61

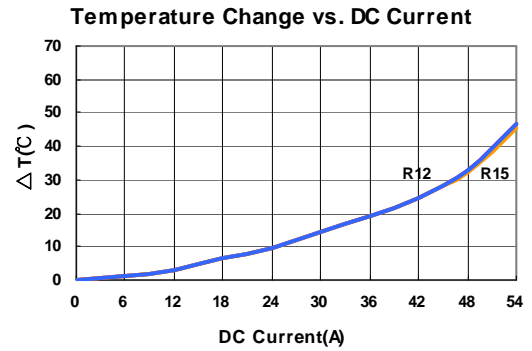
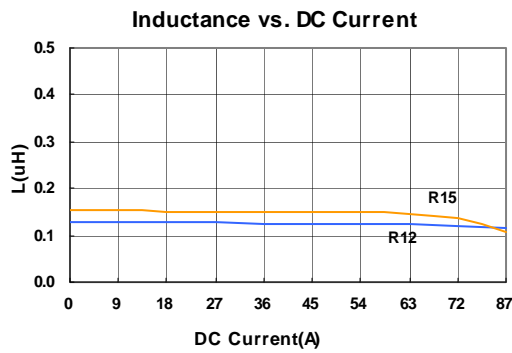
- Customized Specifications are available.
- OCL (Open Circuit Inductance) Test parameters: 100KHz, 0.1Vrms,0Adc & Isat @20°
- DC current for an approximate ΔT of 40°C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, airflow, and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed 155°C under worst case operating conditions verified in the end application.
- Peak Current for approximately 20% rolloff @ 20°C
- Operating ambient temperature range: -40°C to +155°C(Including self - temperature rise )
- Tested L: WK4237METER RDC:HK502BC METER Isat : WK3260B/ 3265B METER



## Electrical Characteristics

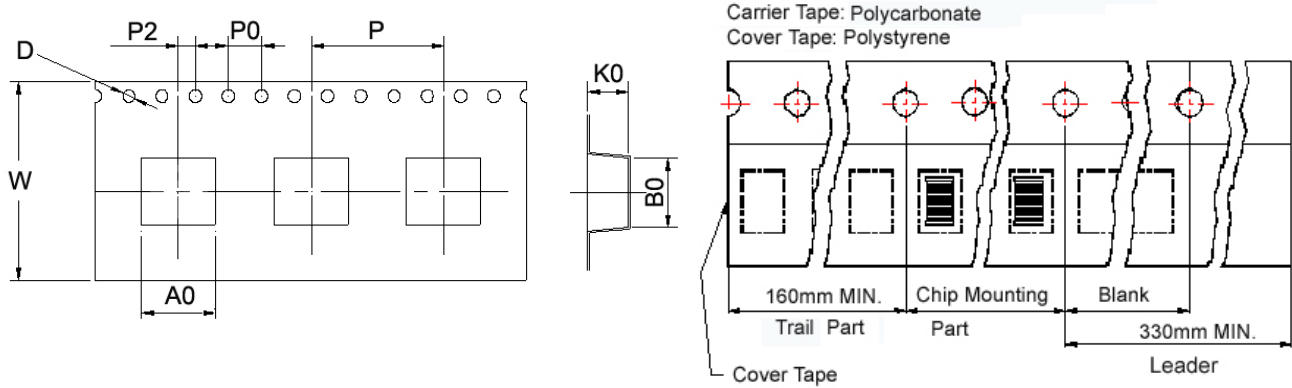
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (KHz)	RDC (mΩ)	Isat <sup>1</sup> (20°C) (A) Max	Isat <sup>2</sup> (125°C) (A) Max	I <sub>rms</sub> (A) Max
SFE150705T-R12K-N	0.12	10	100,1V	0.47±7%	87	75	53
SFE150705T-R15K-N	0.15	10	100,1V	0.47±7%	72	60	53

- Customized Specifications are available.
- OCL (Open Circuit Inductance) Test parameters: 100KHz, 1.0Vrms,0Adc & Isat @20°C
- DC current for an approximate  $\Delta T$  of 40°C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, airflow, and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed 155°C under worst case operating conditions verified in the end application.
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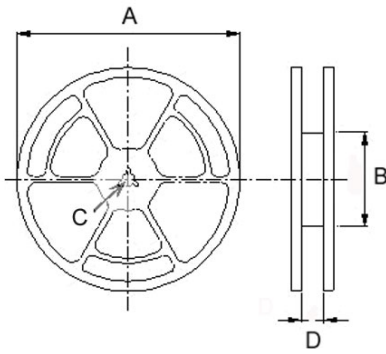


## Packaging Specifications

### Tape Dimensions



### Reel Dimensions



### Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity
	A0	B0	K0	D	W	P	P0	P2	A	B	C	D	PCS / REEL
SFC080705	7.4	8.2	5.4	1.5	24	12	4	2	330	100	13.3	24.5	750
SFD100707	7.5	10.5	7.5	1.5	24	12	4	2	330	100	13.3	24.5	700
SFE150705	7.4	15.4	5.4	1.5	24	16	4	2	330	100	13.3	24.5	750