

# Differential Mode Choke Coils(Pin Terminal) For Signal Line and Power Line, With Substrate

Conformity to RoHS Directive

## SF1-T Series

### FEATURES

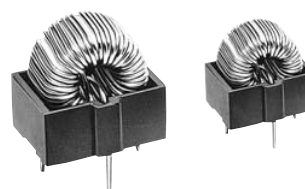
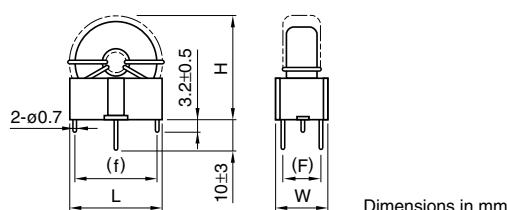
- The SF series chokes feature cores with high saturation magnetic flux density. They thereby provide an effective means of combating pluse EMC.
- By using an advanced amorphous metal alloy core, the SF series are able to provide line noise attenuation performance equivalent to conventional ferrite-based chokes but with far more compact dimensions and fewer coil turns. They can thus be implemented in high-density circuit configurations to comply with various EMC-related regulations.
- The products contain no lead and also support lead-free soldering.

### TYPICAL CHARACTERISTICS OF SF CORE

$\mu$ [300kHz]	75
$\tan\delta$ [ $\mu$ [300kHz]	$3 \times 10^{-3}$
Applicable frequency	10MHz max.
Temperature stability[-20 to +60°C]	5.2%
Bs[24kA/m]	1400mT

### SHAPES AND DIMENSIONS/ELECTRICAL CHARACTERISTICS

#### SF1-T SERIES, ON BOARD TYPE WITH BASE (WITH SUPPORT PIN TERMINAL)



Part No.	Rated current (A)max.	Inductance* <sup>1</sup> ( $\mu$ H)min.	DC resistance (m $\Omega$ )max.	Diameter of winding wire* <sup>2</sup> $\phi$ (mm)	Dimensions(mm)					Weight (g)
					L max.	W max.	H max.	(F)* <sup>3</sup>	(f)* <sup>3</sup>	
SF1-T5-30-01-PF	1	30	80	0.4	13.5	9	14	(7.5)	(10)	2.9
SF1-T5-40-01-PF	1	80	110	0.4	13.5	9	14.5	(7.5)	(10)	2.7
SF1-T8-30S-01-PF	2	26	55	0.6	18	12.5	18	(9.9)	(14)	5.5
SF1-T8-40S-01-PF	2	46	70	0.6	18	12.5	18	(9.9)	(14)	6
SF1-T8-50S-01-PF	2	72	85	0.6	18	12.5	18	(9.9)	(14)	6.5
SF1-T8-50D-01-PF	2	125	100	0.6	18.5	15.5	18	(13)	(14)	9

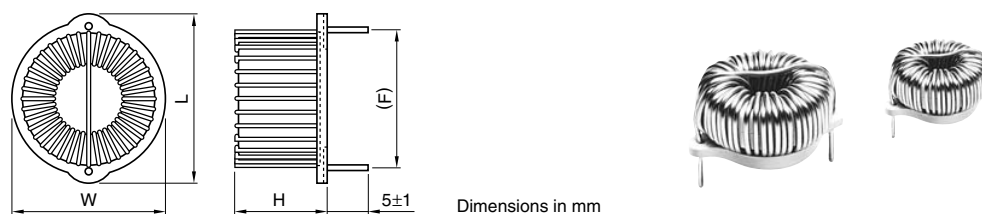
\*<sup>1</sup> LCR METER: YHP4261A, 1kHz(L  $\leq$  190 $\mu$ H:70mA, L > 190 $\mu$ H:10mA)

\*<sup>2</sup> UEW (Grade 1)

\*<sup>3</sup> Reference value

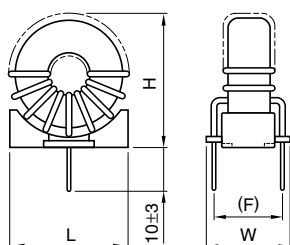
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

**SF1-T SERIES, HORIZONTAL ON BOARD TYPE WITH BASE (WITHOUT SUPPORT PIN TERMINAL)**


Dimensions in mm

Part No.	Rated current (A)max.	Inductance* <sup>1</sup> (μH)min.	DC resistance (mΩ)max.	Diameter of winding wire* <sup>2</sup> ø(mm)	Dimensions(mm)				Weight (g)
					L max.	W max.	H max.	(F)* <sup>3</sup>	
SF1-T5-40-02-PF	1	80	110	0.4	16.5	14	8.9	(12.7)	3.5
SF1-T5-35-02-PF	2	63	75	0.5	16.5	14	8.9	(12.7)	3
SF1-T8-50S-02-PF	2	72	85	0.6	19	17	10.5	(15.2)	6
SF1-T10-30-02-PF	3	40	40	0.8	26.5	22	15	(20)	13
SF1-T10-40-02-PF	3	72	50	0.8	26.5	22	15	(20)	14
SF1-T10-50-02-PF	3	110	70	0.8	26.5	22	15	(20)	16
SF1-T12-30-02-PF	5	35	30	1	30.5	26	16.5	(25)	18.5
SF1-T12-40-02-PF	5	64	40	1	30.5	26	16.5	(25)	20
SF1-T12-50-02-PF	5	100	50	1	30.5	26	16.5	(25)	22.5

\*<sup>1</sup> LCR METER: YHP4261A, 1kHz(L ≤ 190μH:70mA, L > 190μH:10mA)\*<sup>2</sup> UEW (Grade 1)\*<sup>3</sup> Reference value
**SHAPES AND DIMENSIONS/ELECTRICAL CHARACTERISTICS**
**SF1-T SERIES, ON BOARD TYPE WITH BASE (WITHOUT SUPPORT PIN TERMINAL)**


Dimensions in mm



Part No.	Rated current (A)max.	Inductance* <sup>1</sup> (μH)min.	DC resistance (mΩ)max.	Diameter of winding wire* <sup>2</sup> ø(mm)	Dimensions(mm)				Weight (g)
					L max.	W max.	H max.	(F)* <sup>3</sup>	
SF1-T10-30-01-PF	3	40	40	0.8	24	18	25	12.5	13.5
SF1-T10-40-01-PF	3	72	50	0.8	24	18	25	12.5	14.5
SF1-T10-50-01-PF	3	110	70	0.8	24	18	25	12.5	16
SF1-T12-30-01-PF	5	35	30	1	26	18	29	12.5	18
SF1-T12-40-01-PF	5	64	40	1	26	18	29	12.5	20
SF1-T12-50-01-PF	5	100	50	1	26	18	29	12.5	23
SF1-300Y10A-01-PF	10	30	10	1.6	33	18	37	12.5	47.5
SF1-800Y10A-01-PF	10	80	16	1.5	33	18	37	12.5	53

\*<sup>1</sup> LCR METER: YHP4261A, 1kHz(L ≤ 190μH:70mA, L > 190μH:10mA)\*<sup>2</sup> UEW (Grade 1)\*<sup>3</sup> Reference value