EMC Components

TF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply Toroidal Core Type

TDK common mode choke coils(line filters) are used in a wide range of prevention of electromagnetic interference(EMI) and radio frequency interference(RFI) from power supply lines and for prevention of multifunctioning of products such as measuring equipment and system equipment.

RATINGS

Item	Standard value	Conditions
Rated voltage Eac(V)	80 to 280	
Dielectric withstanding voltage Eac(V)	2000	Between each winding for 1 minute
Insulation resistance Edc(MΩ)	100min.	Between each winding for 1 minute, Edc 500V
Temperature rise(°C)	45max.*	With line resistance, each line
Operating temperature range(°C)	–20 to +120	Including self-temperature rise
Safety standard	Japan Electric/Electronic Products Control Law, UL, CSA and IEC conforted(The safety standard is not acquired with the unit only.)	

* Except particular items.

- Measuring equipment of inductance value:
  LCR meter(HP4261A, HP4263B or equivalent)

FEATURES

- Wide range of selection.
- High impedance at applicable frequency.
- High self-resonant frequency.

PRODUCT IDENTIFICATION

UF	□□□□	V	□	–	□□□Y	□R□	–	01
(1)	(2)	(3)	(4)		(5)	(6)		(7)

(1)Core shape
UF: U-type core
TF: Toroidal core
HF: Square shaped closed magnetic circuit core type
Double-square shaped closed magnetic circuit core type
(2)Dimensional code(Length×Height)
(3)External shape code
(4)TDK's internal code
(5)Inductance value
Example) 602: 60μH×10²=6mH
(6)Rated current value
Example) 2R5: 2.5A
(7)Product management number

SELECTION CHART

Series	Configuration	Type	Inductance value min.	Rated current (A)	Handling power* L×I²(mH×A²)	Weight (g)typ.	Minimum package quantity (pieces/box)
TF	Horizontal types (Toroidal core)	TF1028S	0.45 to 2.2mH	0.5 to 3	2.5	8	900
		TF4825S	1, 2mH	10 to 15	200	95	120
		TF6029S	1mH	20 to 30	400	205	70
		TF2320HU	1 to 5mH	2 to 5	25	18	300
		TF2514HU	0.1mH	5 to 7	4.9	18	300
		TF2519HU	1 to 5mH	2 to 5	25	16	300
		TF3424HU	0.3 to 8mH	4 to 20	120	42	250
		TF4930HU	1 to 10mH	6 to 20	400	87	120
		TF1815HU	3 to 10mH	0.3 to 2	12	6	600
		TF4131HU	0.7 to 3mH	10 to 18	226.8	76	150
		TF6136HU	1, 2mH	15 to 30	900	172	75
	Vertical types (Toroidal core)	TF1320S	1 to 4mH	1.5 to 3	9	6.5	1000
		TF2528S	0.45 to 7mH	2.5 to 10	50	19.5	840
		TF3233S	0.25 to 10mH	3 to 20	130	41	320
		TF1713VU	1, 2mH	1 to 3	8	4	2000
		TF1714VU	1 to 15mH	1 to 3	9	6	2000
		TF2420VU	1 to 8mH	2 to 6	36	18	800
		TF2514VU	0.13 to 12mH	2 to 7	6.4	8	800
		TF3423VU	0.5 to 10mH	4 to 20	200	45	400
		TF4725VU	2 to 10mH	6 to 15	225	85	90
		TF1821VU	2 to 10mH	0.3 to 2	8	7	800
		TF2326VU	1 to 3mH	2 to 6	36	19	800
		TF2527VU	1 to 3mH	2 to 6	36	20	800
		TF3435VU	0.3 to 10mH	4 to 20	120	40	400
	With nano crystallization alloy magnetically soft material(Toroidal core)	TF2326VU-M	3 to 10mH	3 to 6	170	20	800
		TF3435VU-M	8 to 33mH	4 to 10	800	38	400
		TF4930HU-M	6 to 40mH	6 to 15	1350	99.8	120
		TF6337HU-M	4 to 10mH	15 to 30	3600	204.9	75
	Multi-section case types (For high frequency)	TF3329B	8.5 to 15mH	2.5 to 3.5	100	40.5	375

EMC Components

TF Series

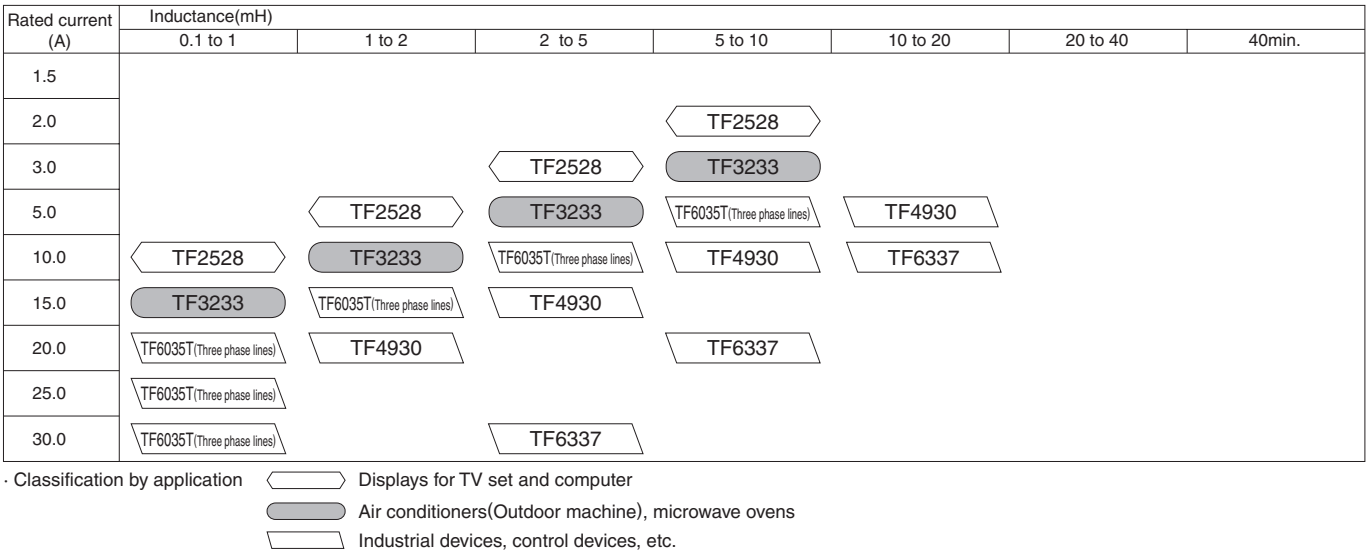
Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

SELECTION CHART

Series	Configuration	Type	Inductance value min.	Rated current (A)	Handling power* $L \times I^2$ ($mH \times A^2$)	Weight (g)typ.	Minimum package quantity (pieces/box)
TF	Vertical types(Toroidal core) (For high frequency)	TF1707VU	20, 100µH	2 to 3	0.9	2.5	2000
		TF1709VU	20, 100µH	2 to 3	0.9	3.2	3000
		TF2326VU-H	30, 50µH	4 to 5	0.75	19.7	800
		TF3435VU-H	30 to 60µH	8 to 15	6.75	35.8	400
	For three phase lines(Toroidal core)	TF6030T	1 to 7.5mH	5 to 14	160	150	70
		TF6035T	0.2 to 1.6mH	15 to 30	400	160	70
		TF3524TU	1 to 5mH	3 to 5	50	40	200
		TF4333TU	0.5 to 5mH	5 to 15	112.5	95.1	120
		TF5228TU	1 to 5mH	5 to 10	200	109.7	90
		TF6332TU	0.5 to 2mH	15 to 25	312.5	212.1	75
		TF6340TU	1 to 3mH	10 to 25	625	258.4	75

* Handling power=(Inductance value)×(Current)^2. It is possible to design within the range below this value.
[Example] The coil for 2A can make even the inductance of 2.5mH or less a product for handling power 10.

THE LINE-UP OF TDK LINE FILTER



· Classification by application
- Displays for TV set and computer
- Air conditioners(Outdoor machine), microwave ovens
- Industrial devices, control devices, etc.

EMC Components

TF Series

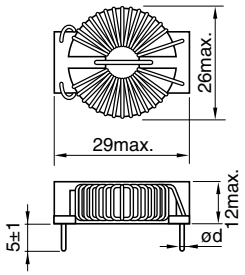
Common Mode Choke Coils(Line Filters) for AC Power Supply Toroidal Core Type

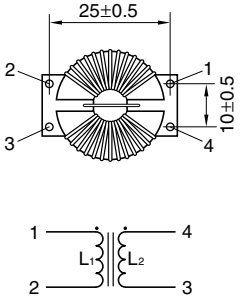
HORIZONAL TYPE
TF SERIES

FEATURES

- This series uses a high permeability toroidal ferrite core and therefore provides large inductance with a little number of turns.
- Therefore its stray capacity is small and it keeps the impedance required to effectively suppress high frequency noises.
- Products mounted on a base with fixed leads are easy to insert to circuit boards.

TF1028S(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM

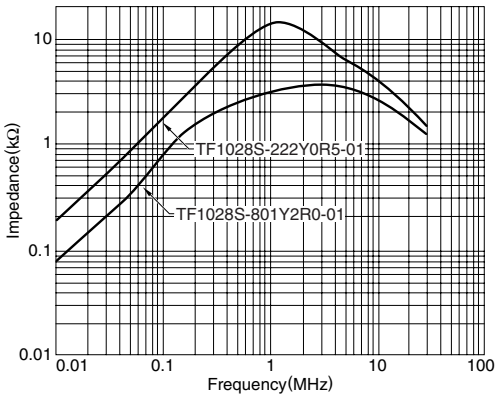






Weight: 8g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

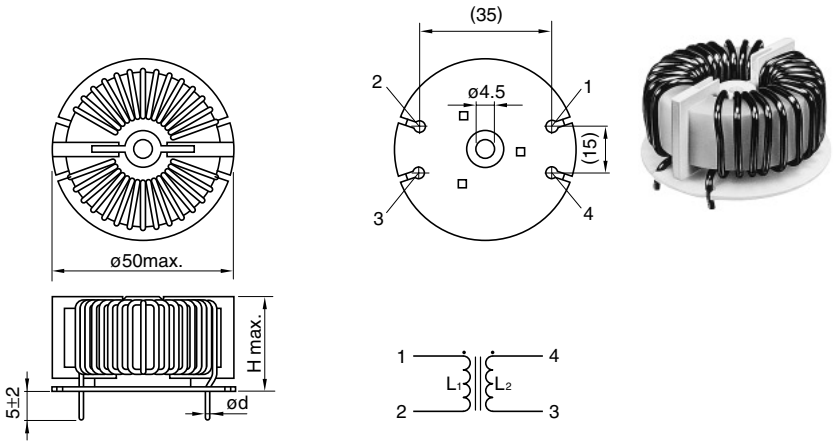
Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm) ød
TF1028S-222Y0R5-01	2.2	50	0.2	0.5	0.4
TF1028S-162Y1R3-01	1.6	50	0.2	1.3	0.4
TF1028S-102Y1R5-01	1	50	0.1	1.5	0.45
TF1028S-801Y2R0-01	0.8	50	0.1	2	0.5
TF1028S-451Y3R0-01	0.45	50	0.06	3	0.6

EMC Components

TF Series

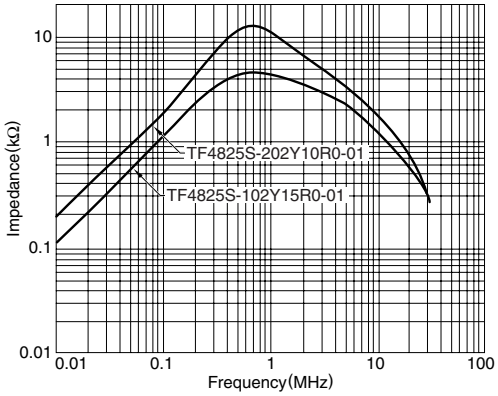
Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

TF4825S(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 95g typ.
Recommended hole diameter: ød+0.4
Dimensions in mm

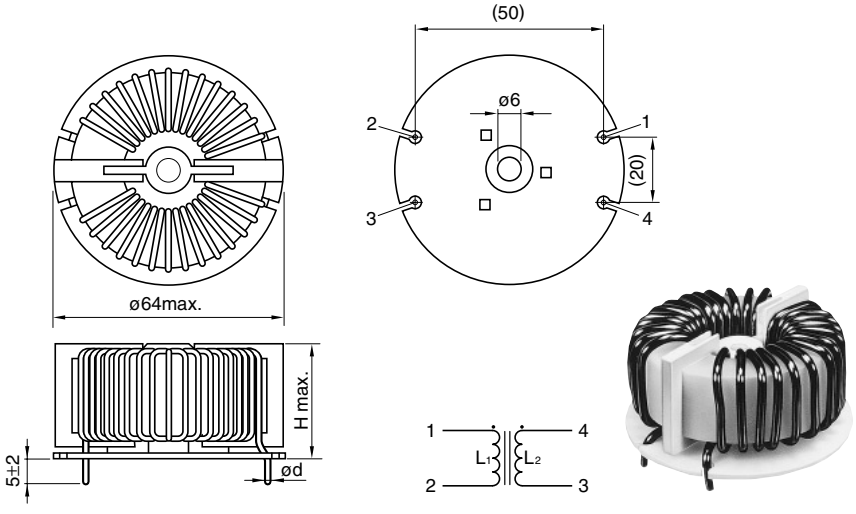
TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

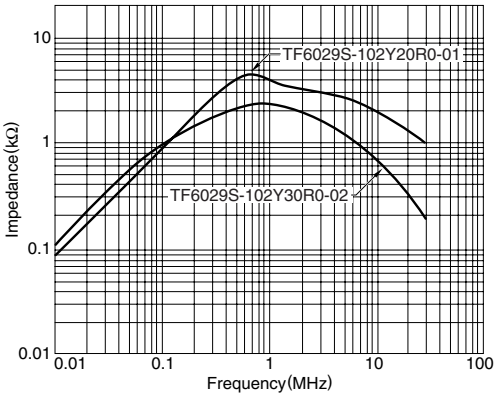
Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)	
					ød	H max.
TF4825S-202Y10R0-01	2	50	20	10	1.3	28
TF4825S-102Y15R0-01	1	50	7.5	15	1.8	31

TF6029S(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 205g typ.
Recommended hole diameter: ød+0.5
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

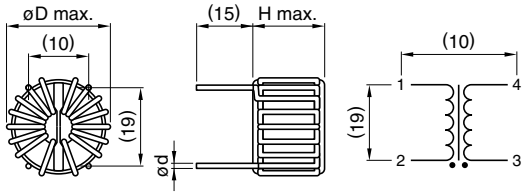
Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)	
					ød	H max.
TF6029S-102Y20R0-01	1	50	5	20	2.3	36
TF6029S-102Y30R0-02	1	50	4	30	2.6	40

EMC Components

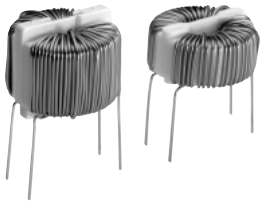
TF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

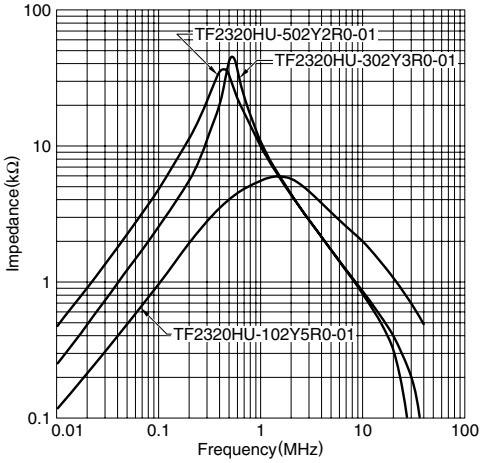
TF2320HU/TF2514HU(HORIZONTAL TYPE WITHOUT TERMINAL BASE) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 18g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm



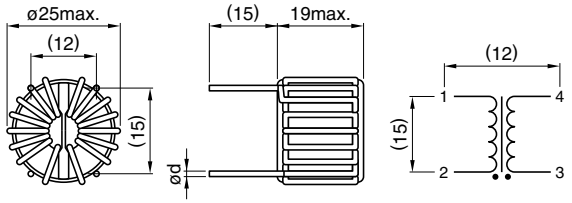
TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)		
					ød	øD max.	H max.
TF2320HU type							
TF2320HU-102Y2R0-01	1	50	100	2	0.5	23	20
TF2320HU-502Y2R0-01	5	100	130	2	0.6	23	20
TF2320HU-302Y3R0-01	3	150	90	3	0.65	23	20
TF2320HU-102Y5R0-01	1	50	50	5	0.8	23	20
TF2514HU type							
TF2514HU-101Y5R0-01	0.1	30	40	5	0.8	24	13
TF2514HU-101Y7R0-01	0.1	30	10	7	1.1	25	14

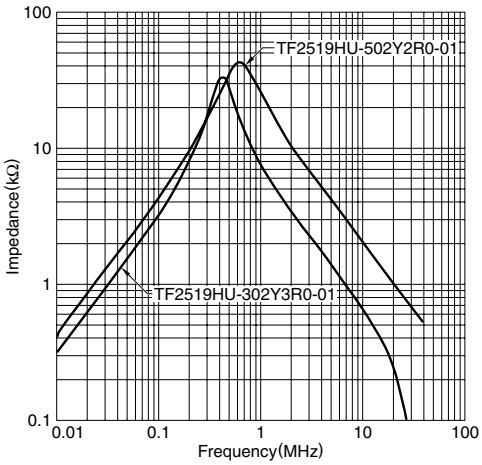
TF2519HU(HORIZONTAL TYPE WITHOUT TERMINAL BASE) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 16g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

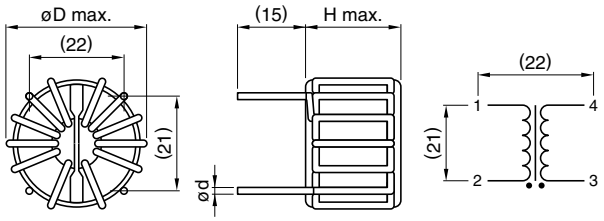
Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm)
					ød
TF2519HU-202Y2R0-01	2	100	110	2	0.55
TF2519HU-502Y2R0-01	5	150	130	2	0.55
TF2519HU-102Y3R0-01	1	50	70	3	0.65
TF2519HU-302Y3R0-01	3	100	90	3	0.7
TF2519HU-102Y5R0-01	1	50	50	5	0.8

EMC Components

TF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

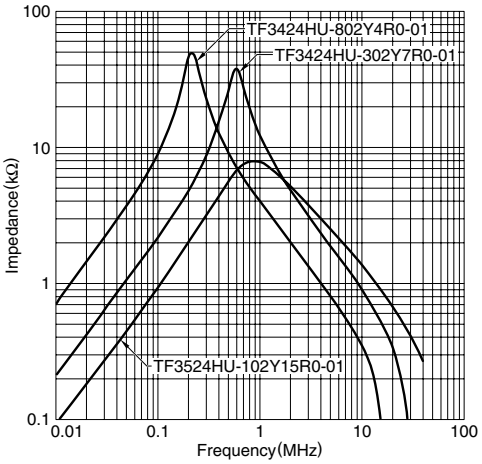
TF3424HU(HORIZONTAL TYPE WITHOUT TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 42g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm



TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

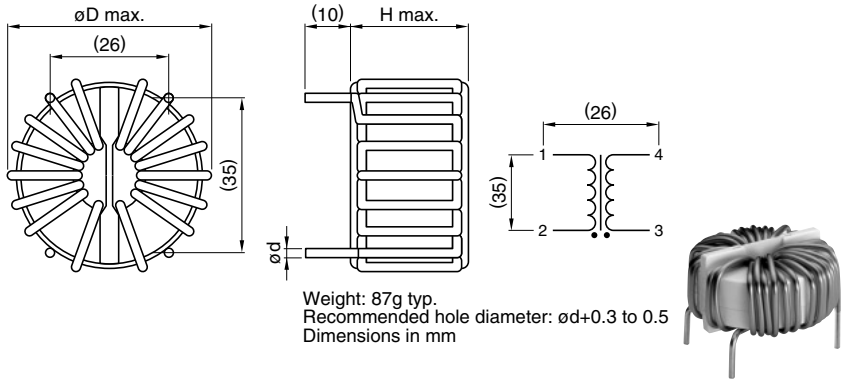
Part No.	Inductance (mH)min.	L_1-L_2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)		
					ød	øD max.	H max.
TF3424HU-802Y4R0-01	8	200	90	4	0.8	31	21
TF3424HU-502Y5R0-01	5	150	80	5	0.8	31	21
TF3424HU-302Y7R0-01	3	150	60	7	1	31	21
TF3424HU-102Y10R0-01	1	50	30	10	1.3	33	23
TF3424HU-202Y10R0-01	2	80	40	10	1.3	33	23
TF3424HU-102Y15R0-01	1	50	20	15	1.5	33	23
TF3424HU-301Y20R0-01	0.3	30	10	20	1.8	34	24

EMC Components

TF Series

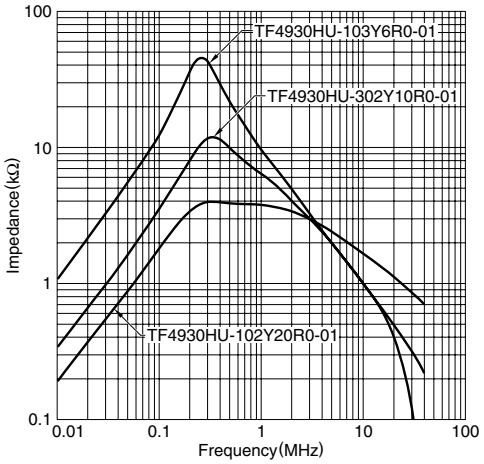
Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

TF4930HU(HORIZONTAL TYPE WITHOUT TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 87g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm

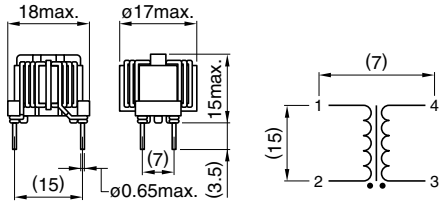
TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY
CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)		
					ød	øD max.	H max.
TF4930HU-103Y6R0-01	10	300	60	6	1.2	47	26
TF4930HU-202Y10R0-01	2	150	30	10	1.3	47	26
TF4930HU-302Y10R0-01	3	150	35	10	1.3	47	26
TF4930HU-202Y15R0-01	2	150	25	15	1.8	48	27
TF4930HU-502Y15R0-01	5	200	35	15	1.5	48	27
TF4930HU-102Y20R0-01	1	50	20	20	2	49	30

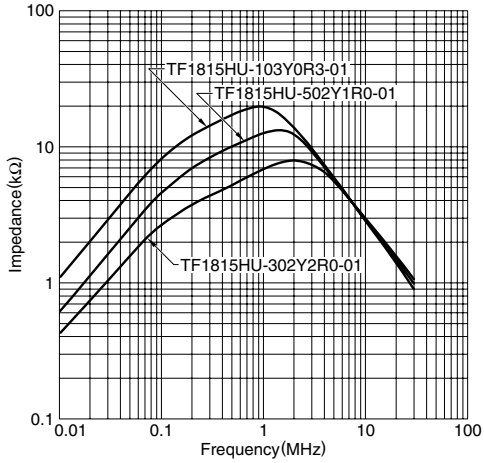
TF1815HU(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight: 6g typ.
Recommended hole diameter: ø0.9 to 1.0
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY
CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

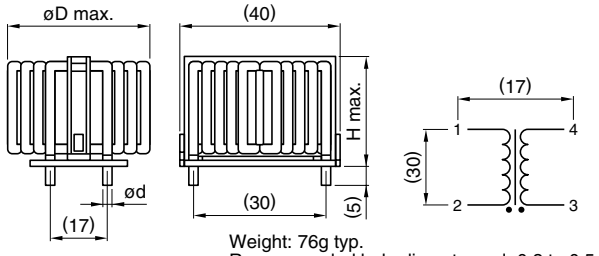
Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.
TF1815HU-103Y0R3-01	10	300	630	0.3
TF1815HU-502Y0R5-01	5	200	410	0.5
TF1815HU-103Y0R5-01	10	300	550	0.5
TF1815HU-502Y1R0-01	5	200	250	1
TF1815HU-103Y1R0-01	10	300	325	1
TF1815HU-302Y2R0-01	3	150	95	2

EMC Components

TF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

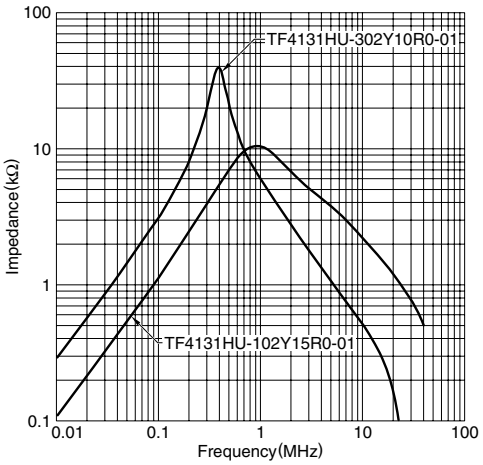
TF4131HU(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 76g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm



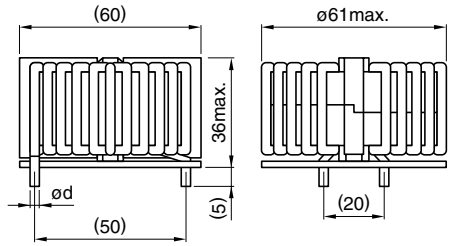
TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)		
					ød	øD max.	H max.
TF4131HU-202Y10R0-01	2	100	20	10	1.5	38	29
TF4131HU-302Y10R0-01	3	150	30	10	1.5	39	30
TF4131HU-202Y12R0-01	2	100	18	12	1.5	39	30
TF4131HU-102Y15R0-01	1	50	15	15	1.7	39	30
TF4131HU-701Y18R0-01	0.7	30	10	18	1.8	41	31

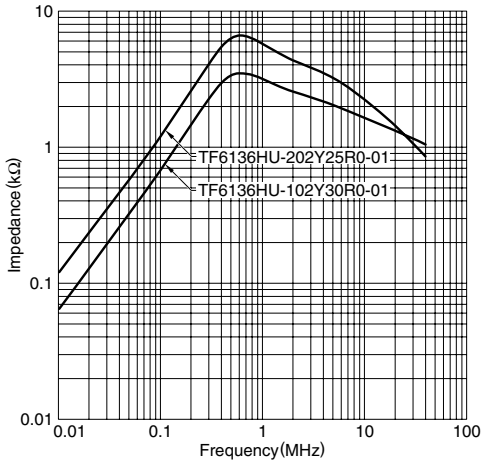
TF6136HU(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 172g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm



TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm)
					ød
TF6136HU-202Y15R0-01	2	80	20	15	1.8
TF6136HU-102Y20R0-01	1	50	10	20	1.8
TF6136HU-202Y20R0-01	2	80	15	20	1.8
TF6136HU-202Y25R0-01	2	80	15	25	2.4
TF6136HU-102Y30R0-01	1	50	8	30	2.4

EMC Components

TF Series

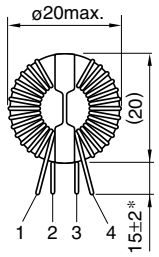
Common Mode Choke Coils(Line Filters) for AC Power Supply Toroidal Core Type

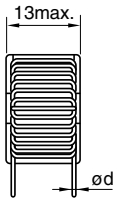
VERTICAL TYPE
TF SERIES

FEATURES

- This series uses a high permeability toroidal ferrite core and therefore provides large inductance with a little number of turns.
- Therefore its stray capacity is small and it provides the impedance levels required to effectively suppress high frequency noises.
- Products mounted on a base with fixed leads are easy to insert to circuit boards.

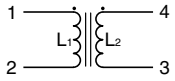
TF1320S(VERTICAL TYPE WITHOUT TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





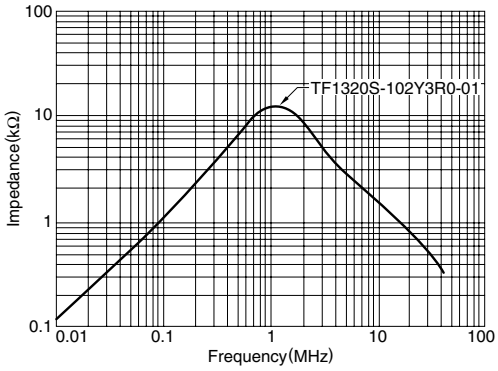


*TF1320S-402Y1R5-01: 5±2



Weight: 6.5g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

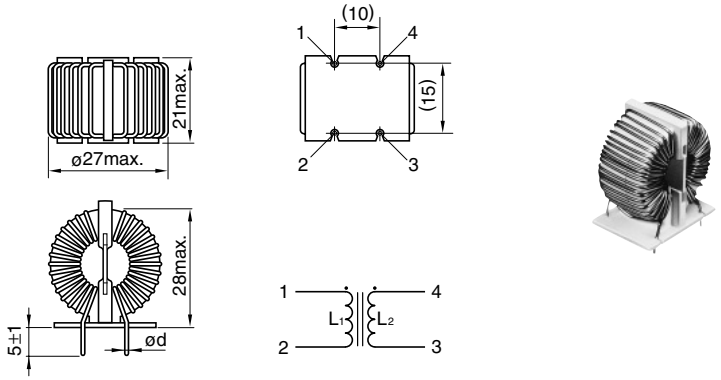
Part No.	Inductance (mH)min.	L1-L2 inductance difference (μH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm) ød
TF1320S-402Y1R5-01	4	100	0.2	1.5	0.4
TF1320S-222Y2R0-01	2.2	75	0.1	2	0.5
TF1320S-102Y3R0-01	1	40	0.04	3	0.6

EMC Components

TF Series

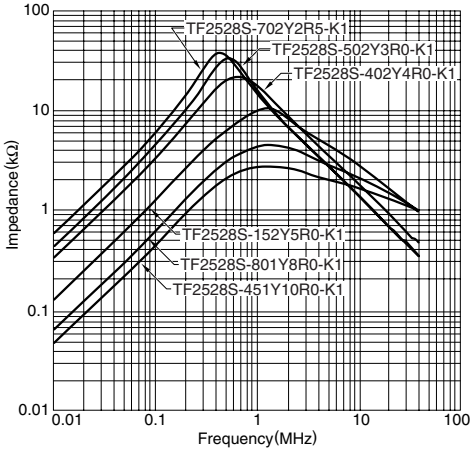
Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

TF2528S(VERTICAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 19.5g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm

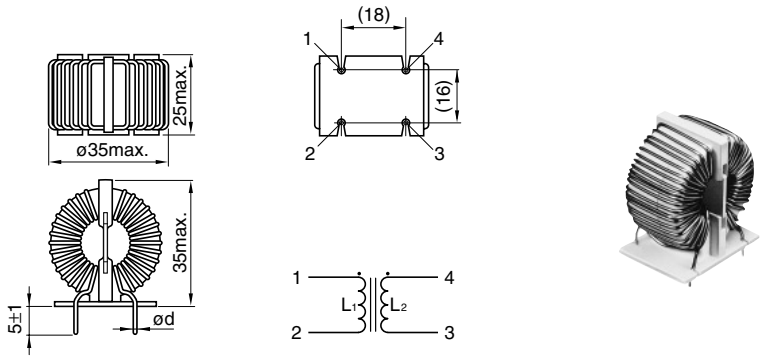
TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

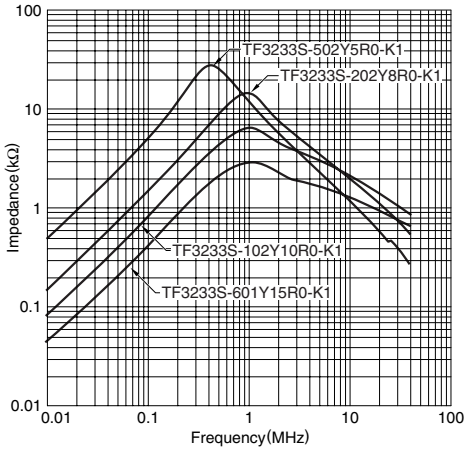
Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm) ød
TF2528S-702Y2R5-K1	7	200	0.2	2.5	0.6
TF2528S-502Y3R0-K1	5	150	0.15	3	0.65
TF2528S-402Y4R0-K1	4	100	0.1	4	0.7
TF2528S-152Y5R0-K1	1.5	80	0.05	5	0.8
TF2528S-801Y8R0-K1	0.8	50	0.02	8	1
TF2528S-451Y10R0-K1	0.45	30	0.015	10	1.1

TF3233S(VERTICAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 41g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

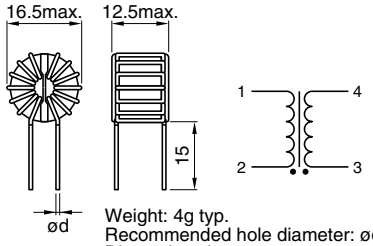
Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm) ød
TF3233S-103Y3R0-K1	10	200	0.15	3	0.7
TF3233S-702Y4R0-K1	7	150	0.1	4	0.8
TF3233S-502Y5R0-K1	5	100	0.05	5	0.9
TF3233S-402Y6R0-K1	4	80	0.03	6	1
TF3233S-202Y8R0-K1	2	60	0.025	8	1.2
TF3233S-102Y10R0-K1	1	30	0.02	10	1.3
TF3233S-601Y15R0-K1	0.6	50	0.007	15	1.6
TF3233S-251Y20R0-K1	0.25	50	0.005	20	1.8

EMC Components

TF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

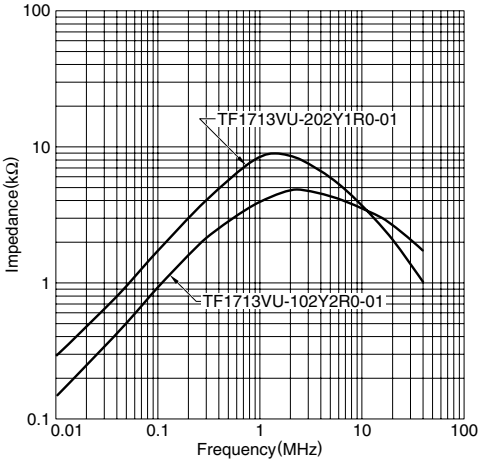
TF1713VU(VERTICAL TYPE WITHOUT TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 4g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm



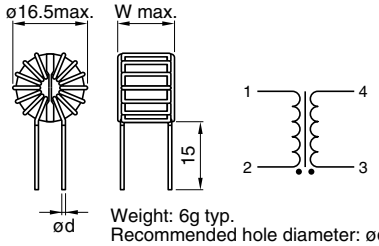
TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm) ød
TF1713VU-202Y1R0-01	2	100	180	1	0.35
TF1713VU-102Y2R0-01	1	50	100	2	0.4
TF1713VU-102Y3R0-01	1	50	70	3	0.5

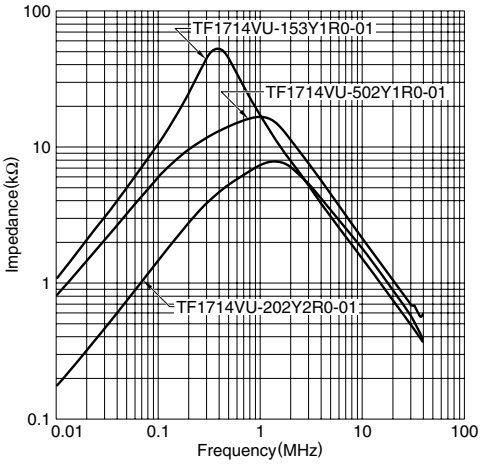
TF1714VU(VERTICAL TYPE WITHOUT TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 6g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm



TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

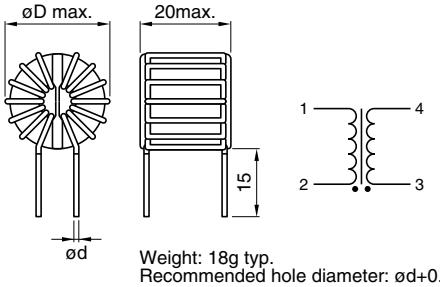
Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac(A) max.	Dimensions(mm) ød	W max.
TF1714VU-502Y1R0-01	5	100	250	1	0.35	12
TF1714VU-802Y1R0-01	8	120	325	1	0.35	14
TF1714VU-103Y1R0-01	10	150	350	1	0.35	14
TF1714VU-153Y1R0-01	15	150	400	1	0.35	14
TF1714VU-202Y2R0-01	2	80	85	2	0.5	14
TF1714VU-102Y3R0-01	1	50	45	3	0.6	12

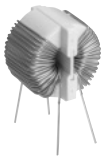
EMC Components

TF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

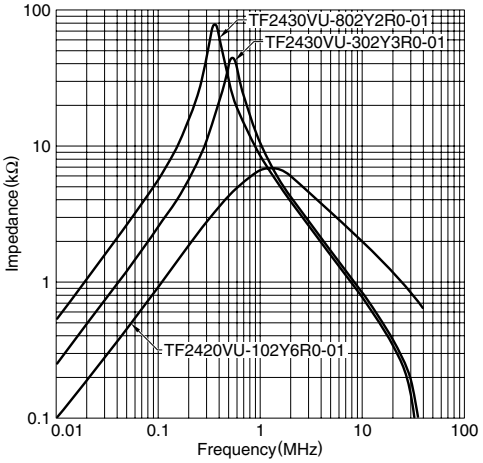
TF2420VU(VERTICAL TYPE WITHOUT TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight: 18g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm

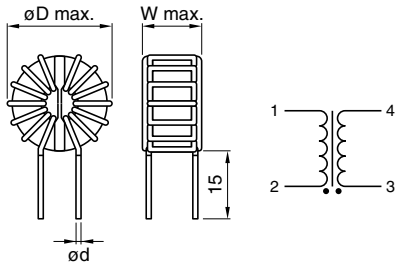
TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)	
					ød	øD max.
TF2420VU-302Y2R0-01	3	150	110	2	0.6	23
TF2420VU-802Y2R0-01	8	200	150	2	0.55	23
TF2420VU-302Y3R0-01	3	150	100	3	0.65	23
TF2420VU-102Y5R0-01	1	50	50	5	0.8	23
TF2420VU-202Y5R0-01	2	100	90	5	0.8	23
TF2420VU-102Y6R0-01	1	50	30	6	0.9	23.5

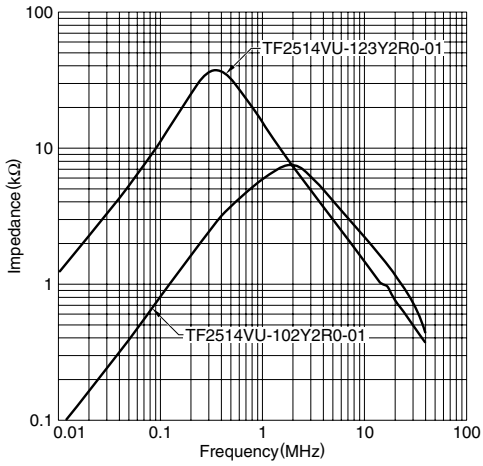
TF2514VU(VERTICAL TYPE WITHOUT TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight: 8g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

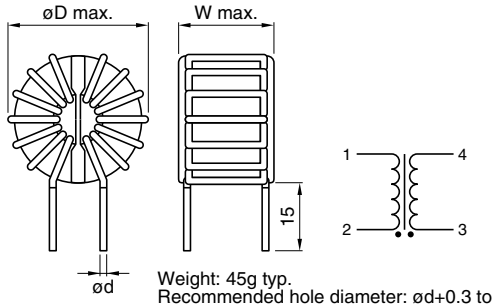
Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)		
					ød	øD max.	H max.
TF2514VU-102Y2R0-01	1	50	100	2	0.5	23	13
TF2514VU-123Y2R0-01	12	150	120	2	0.5	23	13
TF2514VU-101Y5R0-01	0.1	30	40	5	0.8	24	13
TF2514VU-131Y7R0-01	0.13	30	10	7	1.1	25	14

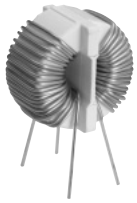
EMC Components

TF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

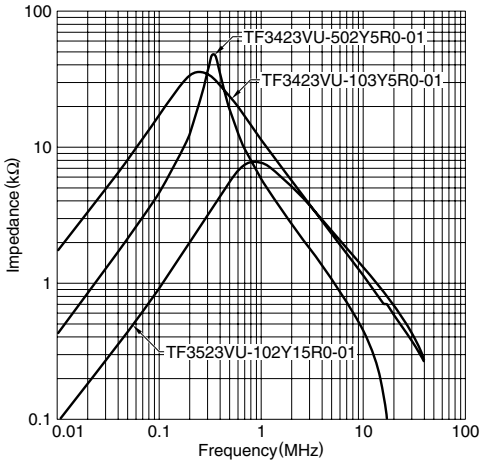
TF3423VU(VERTICAL TYPE WITHOUT TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight: 45g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm

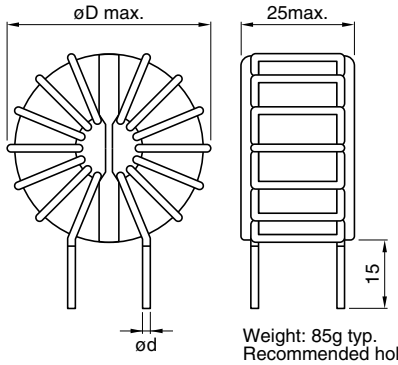
TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS

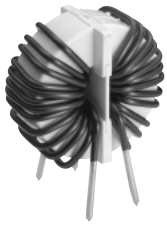


ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L_1-L_2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)		
					ød	øD max.	H max.
TF3423VU-802Y4R0-01	8	200	90	4	0.8	31	21
TF3423VU-202Y5R0-01	2	100	50	5	0.8	31	21
TF3423VU-502Y5R0-01	5	150	80	5	0.8	31	21
TF3423VU-103Y5R0-01	10	300	100	5	0.9	31	21
TF3423VU-102Y10R0-01	1	50	30	10	1.3	33	23
TF3423VU-102Y15R0-01	1	50	20	15	1.5	33	23
TF3423VU-501Y20R0-01	0.5	30	10	20	1.8	34	23

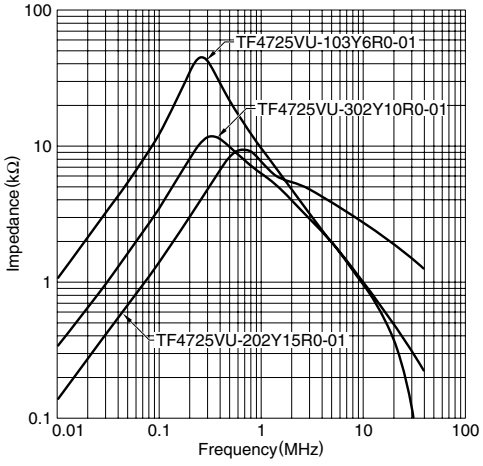
TF4725VU(VERTICAL TYPE WITHOUT TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight: 85g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

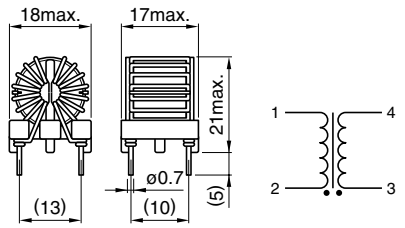
Part No.	Inductance (mH)min.	L_1-L_2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)	
					ød	øD max.
TF4725VU-103Y6R0-01	10	300	60	6	1.2	45
TF4725VU-202Y10R0-01	2	100	90	10	1.3	45
TF4725VU-302Y10R0-01	3	150	50	10	1.3	45
TF4725VU-202Y15R0-01	2	100	70	15	1.8	47

EMC Components

TF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

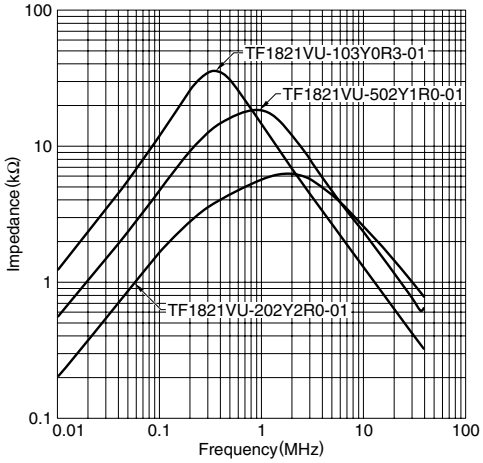
TF1821VU(VERTICAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight: 7g typ.
Recommended hole diameter: ø0.9 to 1.1
Dimensions in mm

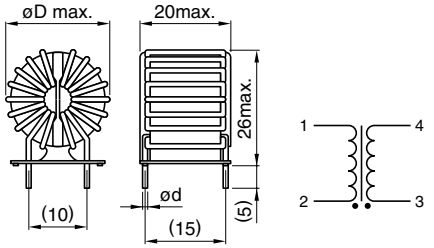
TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.
TF1821VU-103Y0R3-01	10	300	630	0.3
TF1821VU-502Y0R5-01	5	200	410	0.5
TF1821VU-103Y0R5-01	10	300	550	0.5
TF1821VU-502Y1R0-01	5	200	250	1
TF1821VU-103Y1R0-01	10	300	325	1
TF1821VU-202Y2R0-01	2	100	85	2

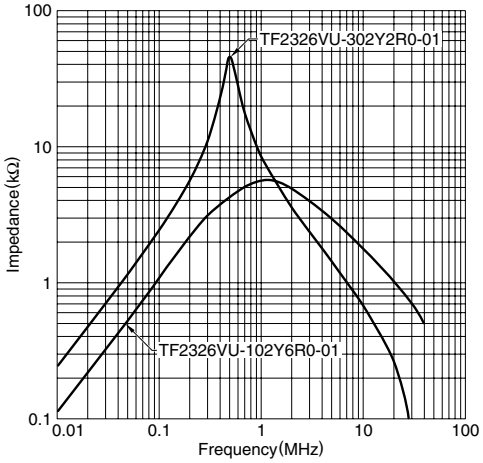
TF2326VU(VERTICAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight: 19g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

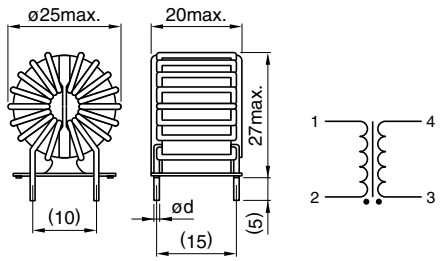
Part No.	Inductance (mH)min.	L1-L2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)	
					ød	øD max.
TF2326VU-302Y2R0-01	3	150	120	2	0.6	23
TF2326VU-302Y3R0-01	3	150	100	3	0.65	23
TF2326VU-102Y5R0-01	1	50	50	5	0.8	23
TF2326VU-202Y5R0-01	2	100	90	5	0.8	23
TF2326VU-102Y6R0-01	1	50	30	6	0.9	23.5

EMC Components

TF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

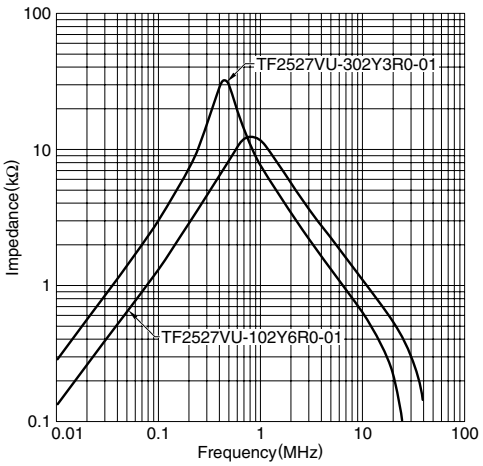
TF2527VU(VERTICAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight: 20g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

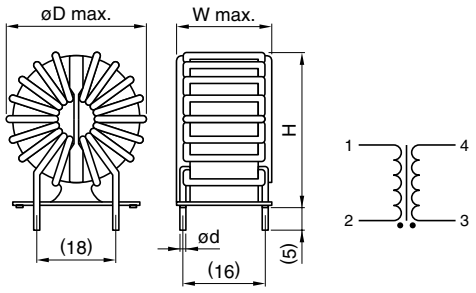
Part No.	Inductance (mH)min.	L_1-L_2 inductance difference (µH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm) ød
TF2527VU-302Y2R0-01	3	150	120	2	0.6
TF2527VU-102Y3R0-01	1	50	90	3	0.65
TF2527VU-302Y3R0-01	3	150	110	3	0.65
TF2527VU-102Y5R0-01	1	50	70	5	0.8
TF2527VU-102Y6R0-01	1	50	60	6	0.9

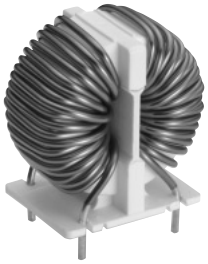
EMC Components

TF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

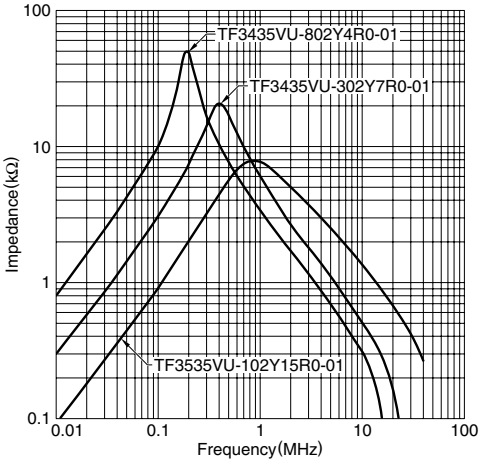
TF3435VU(VERTICAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight: 40g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L_1-L_2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)			
					ød	øD max.	W max.	H max.
TF3435VU-802Y4R0-01	8	200	90	4	0.8	31	21	34
TF3435VU-502Y5R0-01	5	150	100	5	0.8	31	21	34
TF3435VU-103Y5R0-01	10	300	120	5	0.9	31	21	34
TF3435VU-302Y7R0-01	3	150	100	7	1	31	21	34
TF3435VU-102Y10R0-01	1	50	30	10	1.3	33	22	34
TF3435VU-202Y10R0-01	2	80	40	10	1.3	33	22	34
TF3435VU-102Y15R0-01	1	50	20	15	1.5	33	22	34
TF3435VU-301Y20R0-01	0.3	30	10	20	1.8	34	22	35

EMC Components

TF Series

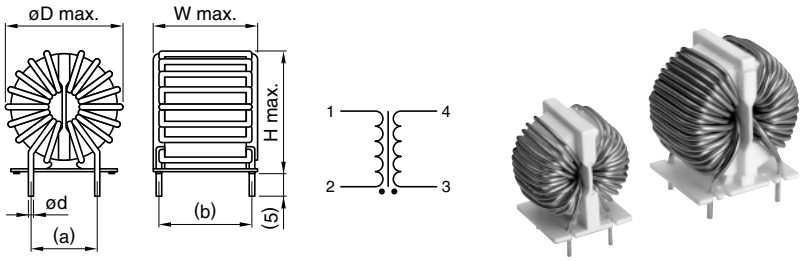
Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type with Nano Crystallization Alloy Magnetically Soft Material

TOROIDAL CORE TYPE WITH NANO CRYSTALLIZATION ALLOY MAGNETICALLY SOFT MATERIAL TF SERIES

FEATURES

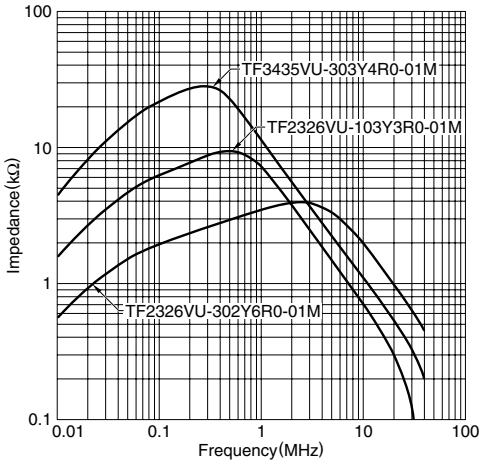
- This is a compact filter that provides large inductance due to the use of high permeability alloy with controlled nano-crystalline structures.
- Products mounted on a base will come with fixed leads and are therefore easy to insert to circuit boards.

TF2326VU-M/TF3435VU-M(VERTICAL TYPE WITH TERMINAL BASE) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight
TF2326VU: 20g typ.
TF3435VU: 38g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L_1-L_2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)					
					ød	D max.	W max.	H max.	(a)	(b)
TF2326VU-M type										
TF2326VU-103Y3R0-01M	10	300	100	3	0.65	23	20	26	10	15
TF2326VU-702Y5R0-01M	7	250	90	5	0.8	23	20	26	10	15
TF2326VU-302Y6R0-01M	3	150	30	6	0.9	23.5	20	26	10	15
TF3435VU-M type										
TF3435VU-303Y4R0-01M	30	500	90	4	0.8	33	23	34	18	16
TF3435VU-333Y5R0-01M	33	500	120	5	0.9	33	23	34	18	16
TF3435VU-802Y10R0-1M	8	250	40	10	1.3	35	23	34	18	16

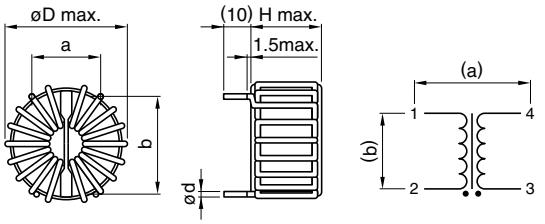
EMC Components

TF Series

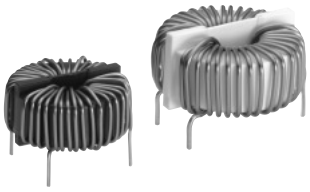
Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type with Nano Crystallization Alloy Magnetically Soft Material

TF4930HU-M/TF6337HU-M(HORIZONTAL TYPE WITHOUT TERMINAL BASE) TYPE

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM

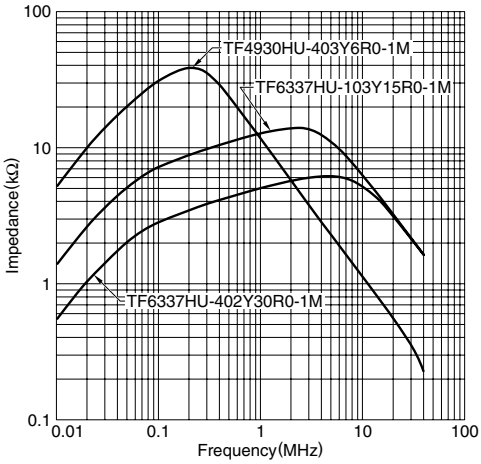


Weight
TF4930HU: 99.8g typ.
TF6337HU: 204.9g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm



TYPICAL ELECTRICAL CHARACTERISTICS

IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L_1-L_2 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)				
					ød	øD max.	H max.	(a)	(b)
TF4930HU-M type									
TF4930HU-403Y6R0-1M	40	700	60	6	1.2	47	32	26	35
TF4930HU-103Y10R0-1M	10	300	35	10	1.3	48	32	26	35
TF4930HU-602Y15R0-1M	6	150	25	15	1.8	48	35	26	35
TF6337HU-M type									
TF6337HU-103Y15R0-1M	10	300	15	15	1.8	60	36	20	50
TF6337HU-802Y25R0-1M	8	200	15	25	2.4	63	37	20	50
TF6337HU-402Y30R0-1M	4	150	10	30	2.4	63	37	20	50

EMC Components

TF Series

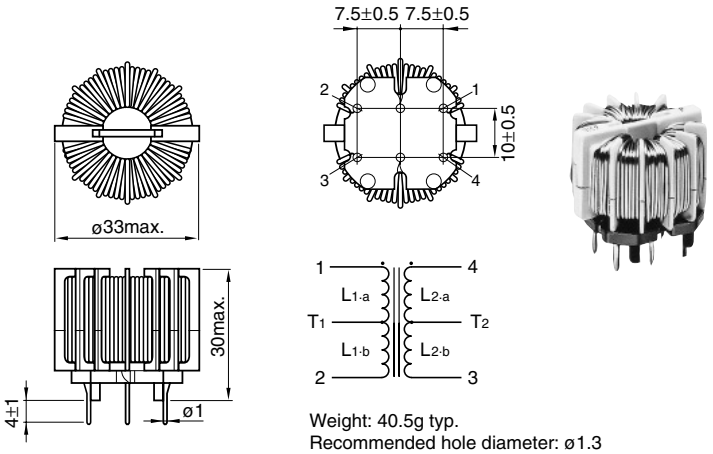
Common Mode Choke Coils(Line Filters) for AC Power Supply
Separable Case Type

MULTI-SECTION CASE TYPE (FOR HIGH FREQUENCY)
TF SERIES

FEATURES

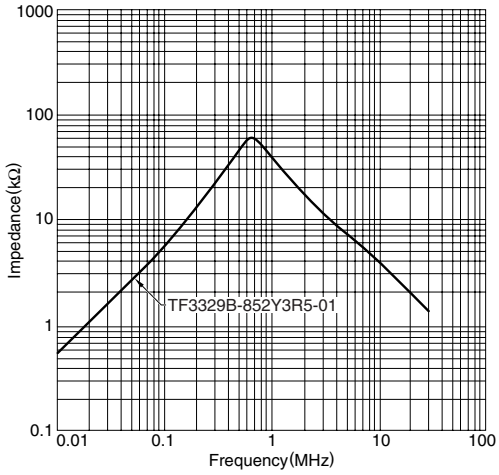
- This series uses six-section windings for each line, which contribute to reduced stray capacity and excellent impedance characteristics in high frequency ranges.

TF3329B(FOR HIGH FREQUENCY) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 40.5g typ.
Recommended hole diameter: ø1.3
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L1-L2 inductance difference (μH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.
TF3329B-153Y2R5-01	15	300	120	2.5
TF3329B-103Y3R0-01	10	200	100	3
TF3329B-852Y3R5-01	8.5	170	70	3.5

EMC Components

TF Series

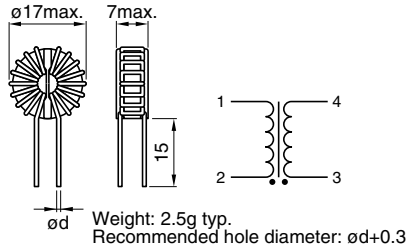
Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

VERTICAL TYPE (FOR HIGH FREQUENCY)
TF SERIES

FEATURES

- To reduce stray capacity, this series uses a single layer winding and is designed to suppress high frequency noises.
- Base-mounted products with fixed leads are easy to insert.

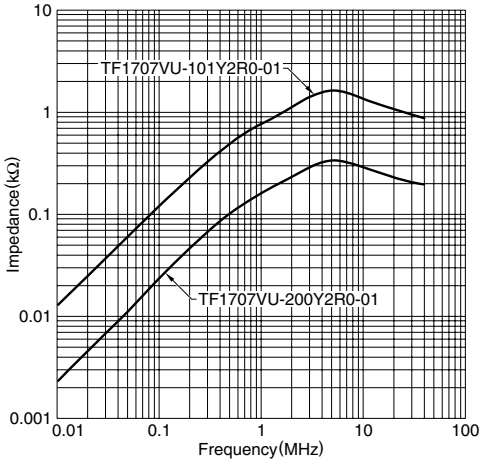
TF1707VU(VERTICAL TYPE WITHOUT TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 2.5g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm



TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY
CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

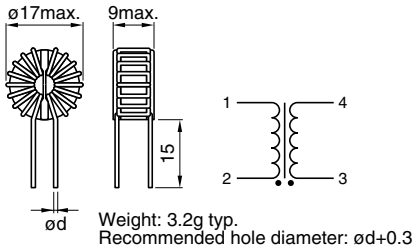
Part No.	Inductance (μH)min.	L_1-L_2 inductance difference (μH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm) ød
TF1707VU-200Y2R0-01	20	10	50	2	0.6
TF1707VU-101Y2R0-01	100	20	40	2	0.6
TF1707VU-101Y3R0-01	100	20	30	3	0.65

EMC Components

TF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type

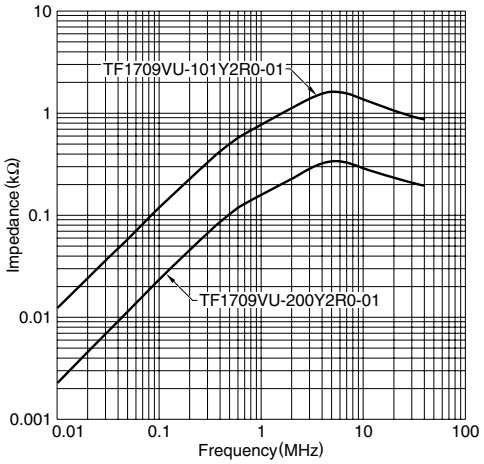
TF1709VU(VERTICAL TYPE WITHOUT TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight: 3.2g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm

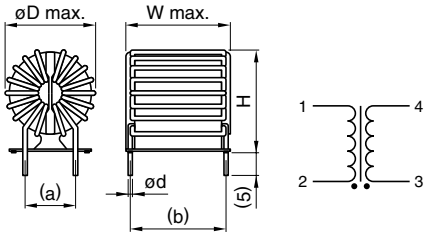
TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS

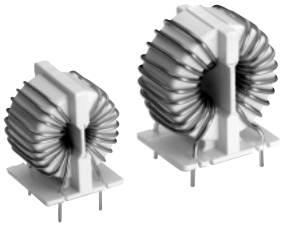


ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μH)min.	L1-L2 inductance difference (μH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm) ød
TF1709VU-200Y2R0-01	20	10	50	2	0.6
TF1709VU-101Y2R0-01	100	20	40	2	0.6
TF1709VU-101Y3R0-01	100	20	30	3	0.65

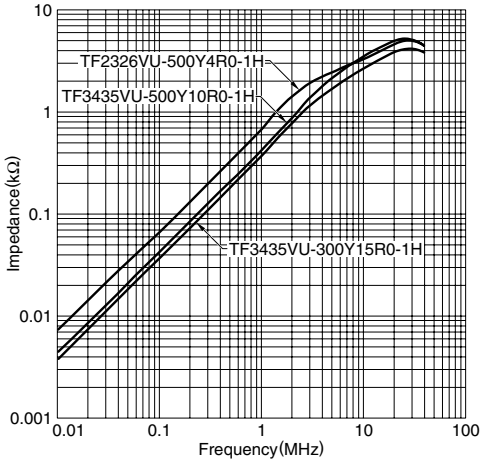
TF2326VU-H/TF3435VU-H(VERTICAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight
TF2326VU: 19.7g typ.
TF3435VU: 35.8g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μH)min.	L1-L2 inductance difference (μH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm) ød	D max.	W max.	H max.	(a)	(b)
TF2326VU-H type										
TF2326VU-500Y4R0-1H	50	10	25	4	0.7	23	20	26	10	15
TF2326VU-300Y5R0-1H	30	10	20	5	0.8	23	20	26	10	15
TF3435VU-H type										
TF3435VU-600Y8R0-1H	60	10	16	8	1	32	22	34	18	16
TF3435VU-500Y10R0-1H	50	10	11	10	1.2	33	22	34	18	16
TF3435VU-300Y15R0-1H	30	10	8	15	1.4	33	22	34	18	16

EMC Components

TF Series

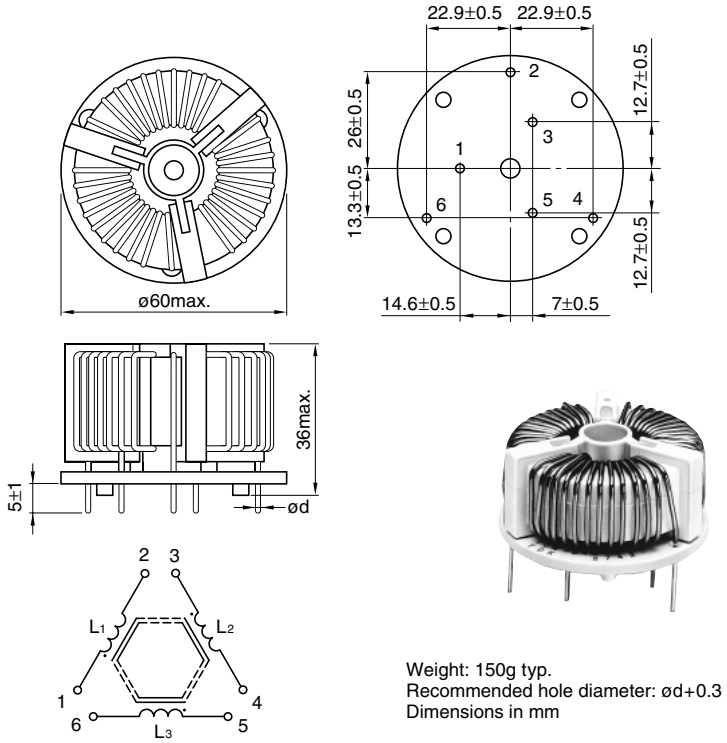
Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type for 3-Phase

TOROIDAL CORE TYPE FOR THREE PHASE LINES
TF SERIES

FEATURES

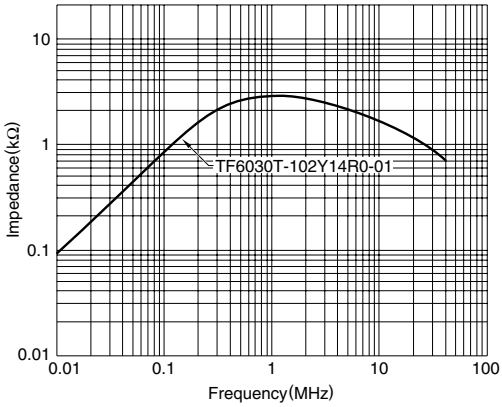
- This series uses a high permeability toroidal ferrite core and can handle heavy currents with fewer number of turns.

TF6030T(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 150g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

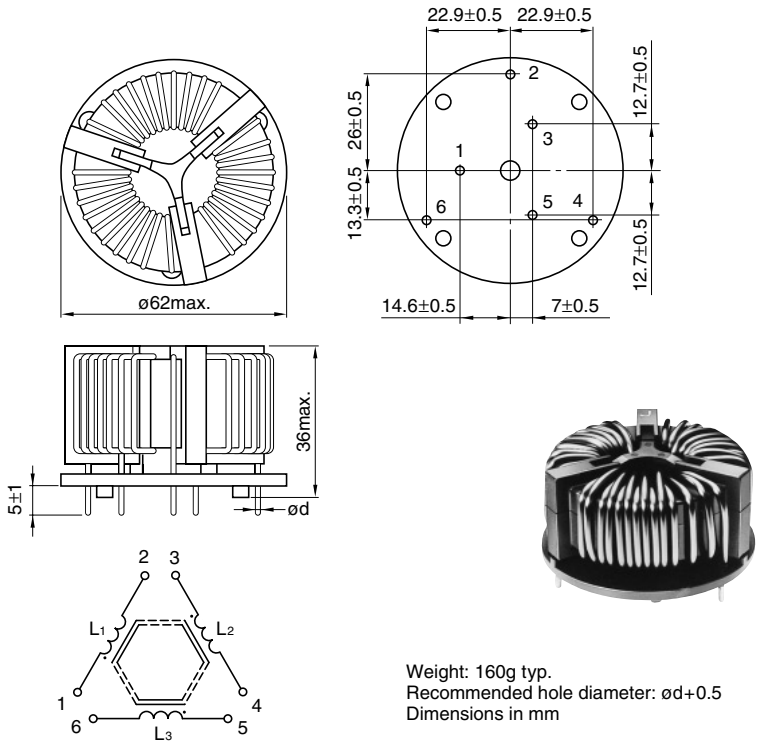
Part No.	Inductance (mH)min.	L1-L2, L2-L3, L3-L1 inductance difference (μH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm) ød
TF6030T-752Y5R0-01	7.5	150	0.1	5	0.9
TF6030T-162Y10R0-01	1.6	100	0.02	10	1.3
TF6030T-102Y14R0-01	1	75	0.02	14	1.5

EMC Components

TF Series

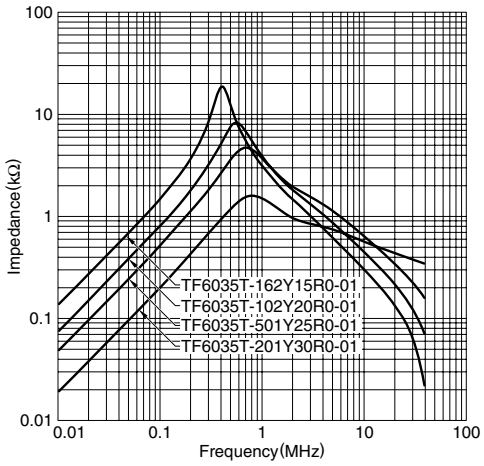
Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type for 3-Phase

TF6035T(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 160g typ.
Recommended hole diameter: ød+0.5
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY
CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

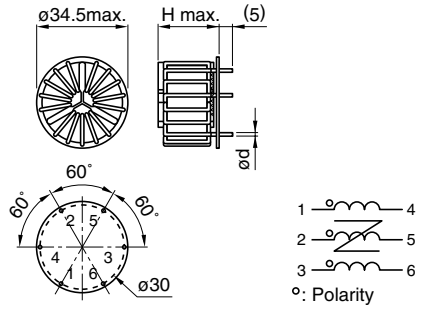
Part No.	Inductance (mH)min.	L1-L2, L2-L3, L3-L1 inductance difference (µH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm) ød
TF6035T-201Y30R0-01	0.2	10	3	30	2.6
TF6035T-501Y25R0-01	0.5	15	5	25	2.3
TF6035T-102Y20R0-01	1	20	8	20	2
TF6035T-162Y15R0-01	1.6	30	12	15	1.8

EMC Components

TF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type for 3-Phase

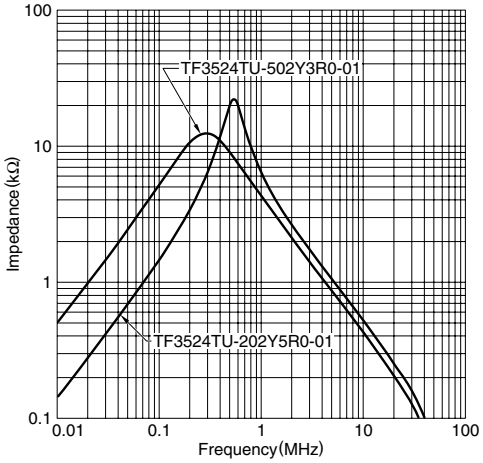
TF3524TU(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight: 40g typ.
Recommended hole diameter: ød+0.3
Dimensions in mm

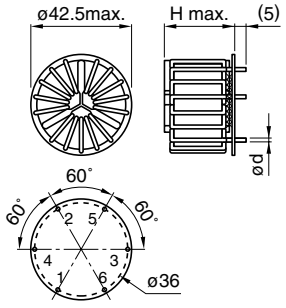
TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L1-L2, L2-L3, L3-L1 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)	
					ød	H max.
TF3524TU-302Y3R0-01	3	150	100	3	0.8	23
TF3524TU-502Y3R0-01	5	200	130	3	0.8	23
TF3524TU-102Y5R0-01	1	50	50	5	1	23
TF3524TU-202Y5R0-01	2	150	60	5	1	24

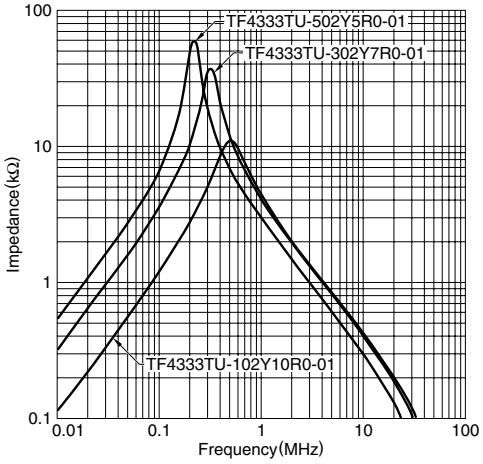
TF4333TU(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM





Weight: 95.1g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

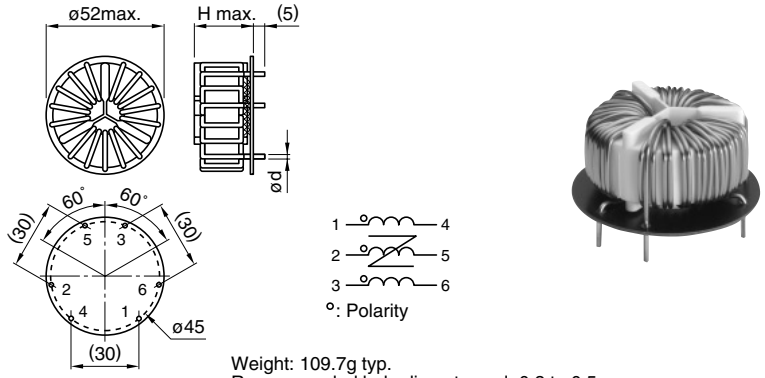
Part No.	Inductance (mH)min.	L1-L2, L2-L3, L3-L1 inductance difference (µH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)	
					ød	H max.
TF4333TU-502Y5R0-01	5	200	55	5	1.1	31
TF4333TU-302Y7R0-01	3	250	35	7	1.3	32
TF4333TU-102Y10R0-01	1	50	15	10	1.5	32
TF4333TU-501Y15R0-01	0.5	30	8	15	1.8	33

EMC Components

TF Series

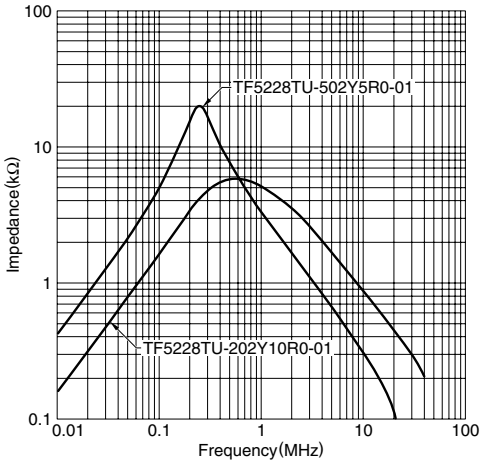
Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type for 3-Phase

TF5228TU(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 109.7g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

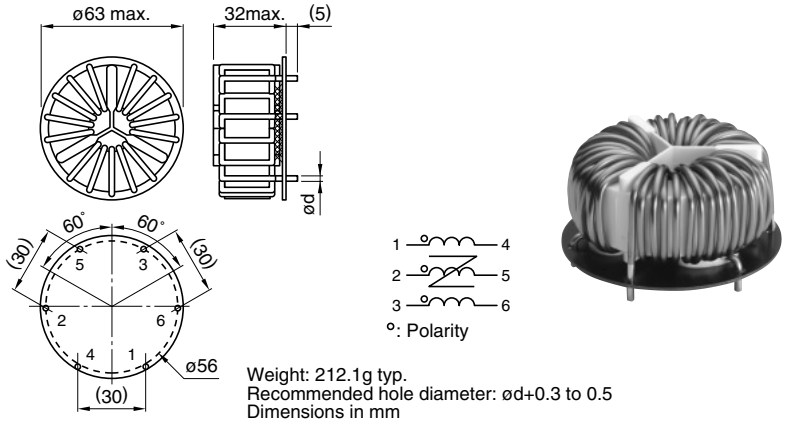
Part No.	Inductance (mH)min.	L_1-L_2, L_2-L_3, L_3-L_1 inductance difference (μH)max.	DC resistance (mΩ)max.	Rated current Iac (A)max.	Dimensions(mm)	
					ød	H max.
TF5228TU-102Y5R0-01	1	50	45	5	1	26
TF5228TU-502Y5R0-01	5	200	95	5	1	26
TF5228TU-302Y8R0-01	3	150	40	8	1.2	26
TF5228TU-102Y10R0-01	1	50	20	10	1.3	26
TF5228TU-202Y10R0-01	2	80	25	10	1.5	28

EMC Components

TF Series

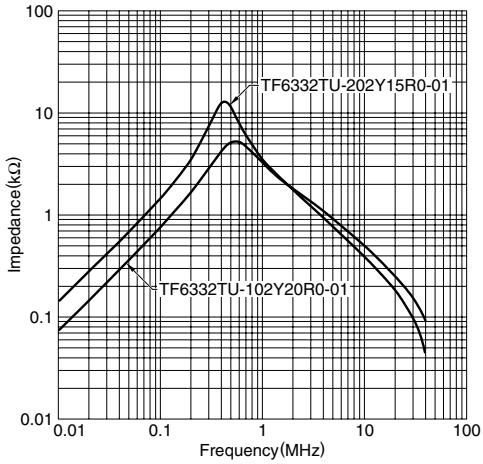
Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type for 3-Phase

TF6332TU(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 212.1g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

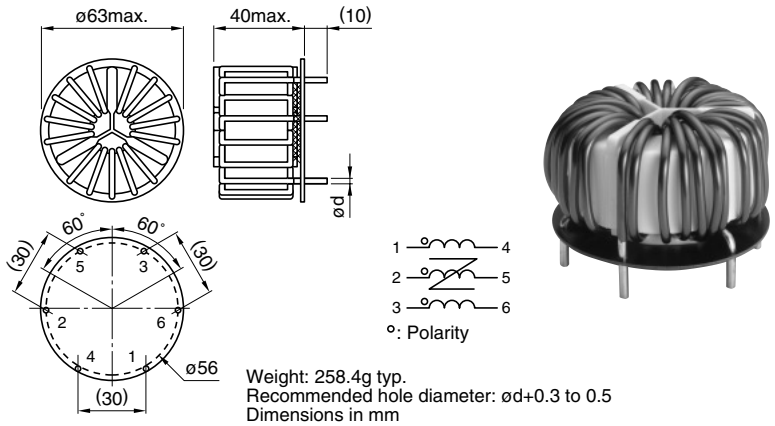
Part No.	Inductance (mH)min.	L_1-L_2, L_2-L_3, L_3-L_1 inductance difference (μH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm) ød
TF6332TU-202Y15R0-01	2	80	20	15	2
TF6332TU-152Y18R0-01	1.5	50	15	18	2.1
TF6332TU-102Y20R0-01	1	50	8	20	2.3
TF6332TU-501Y25R0-01	0.5	30	6	25	2.5

EMC Components

TF Series

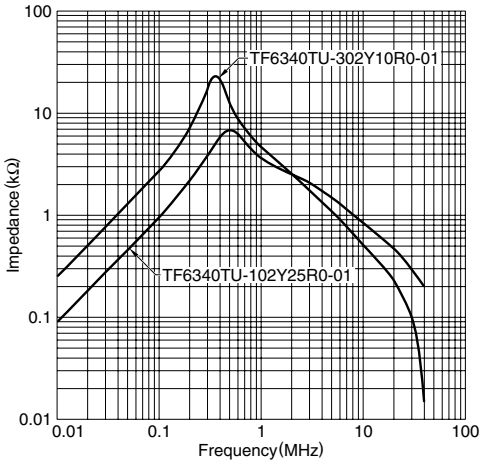
Common Mode Choke Coils(Line Filters) for AC Power Supply
Toroidal Core Type for 3-Phase

TF6340TU(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 258.4g typ.
Recommended hole diameter: ød+0.3 to 0.5
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS
IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	L_1-L_2, L_2-L_3, L_3-L_1 inductance difference (μH)max.	DC resistance (Ω)max.	Rated current Iac (A)max.	Dimensions(mm) ød
TF6340TU-302Y10R0-01	3	150	35	10	1.5
TF6340TU-202Y15R0-01	2	120	25	15	1.8
TF6340TU-102Y20R0-01	1	50	10	20	2.3
TF6340TU-102Y25R0-01	1	50	8	25	2.4