

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(V)	80 to 280*	
Dielectric withstanding voltage(V)	2000	Between each winding for 1 minute
Insulation resistance (MΩ)	100min.	Between each winding for 1 minute, Edc 500V
Temperature rise(°C)	45max.*	With line resistance
Operating temperature range(°C)	-20 to +120	Including self-temperature rise
Safety standard	Japan Electric/Electronic Products Control Law, UL, CSA and IEC conformed(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.

SELECTION CHART

Series	Configuration	Type	Inductance value min.	Rated current (A)	Handling power* $L \times I^2$ (mH×A ²)	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
		TF2720B	0.45 to 7mH	2.5 to 10	50	20	400
		TF3524B	0.25 to 10mH	3 to 20	130	42	300
		TF4825S	1, 2mH	10 to 15	200	95	120
		TF6029S	1mH	20 to 30	400	205	70
		TF1320S	1 to 4mH	1.5 to 3	9	6.5	1000
	Vertical types (Toroidal core)	TF2628V	0.45 to 7mH	2.5 to 10	50	19.5	700
		TF3524V	0.25 to 10mH	3 to 20	130	41	320
		Multi-section case types (For high frequency)	TF3329B	8.5 to 15mH	2.5 to 3.5	100	40.5
	Vertical types(Toroidal core) (For high frequency)	TF2628V-1H	25 to 65μH	6 to 12	3.65	18	700
		TF3524V-1H	25 to 120μH	8 to 20	10.8	40	320
	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

* 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.

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

EMC Components

TF Series

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

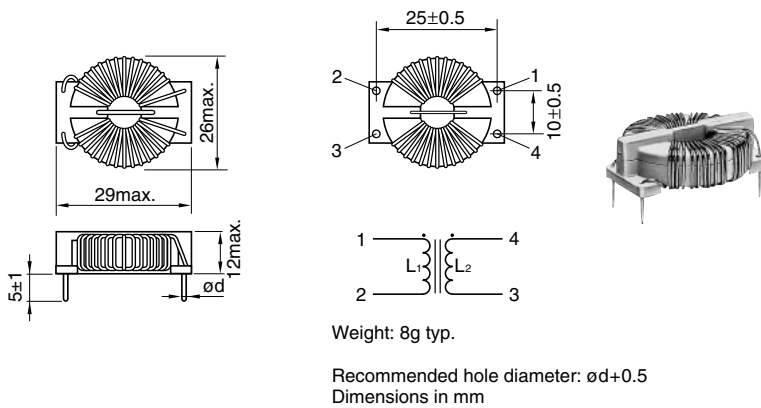
HORIZONTAL TYPE

TF SERIES

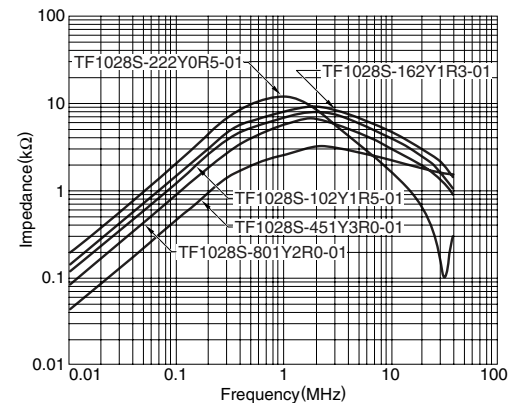
FEATURES

- 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



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

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

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN"), IEC60065, UL6500, CSA C22.2

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

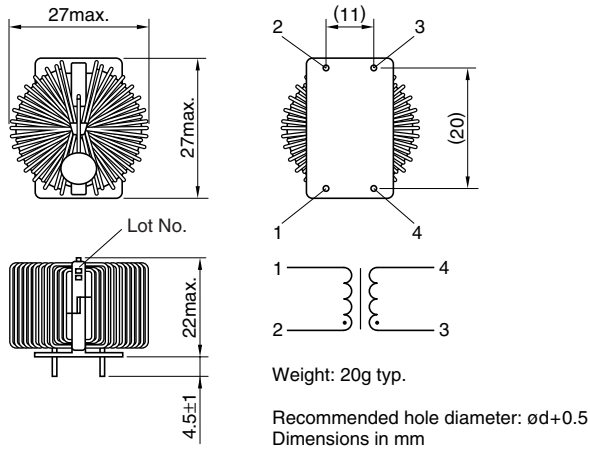
TF1028S	900pieces/box
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EMC Components

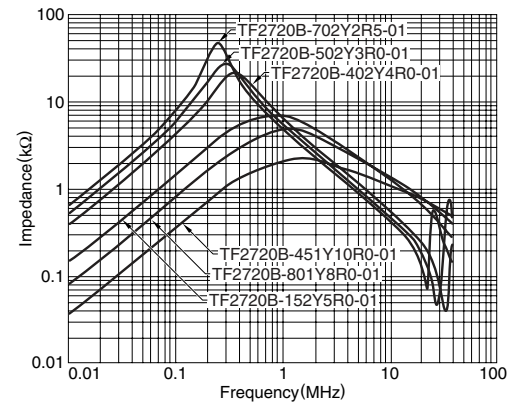
TF Series

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

TF2720B(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	DC resistance (Ω)max.	Rated current (A)max.	Dimensions(mm) ød
TF2720B-702Y2R5-01	7	0.2	2.5	0.6
TF2720B-502Y3R0-01	5	0.15	3	0.65
TF2720B-402Y4R0-01	4	0.1	4	0.7
TF2720B-152Y5R0-01	1.5	0.05	5	0.8
TF2720B-801Y8R0-01	0.8	0.02	8	1
TF2720B-451Y10R0-01	0.45	0.015	10	1.1

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN"), IEC60065, UL6500, CSA C22.2

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

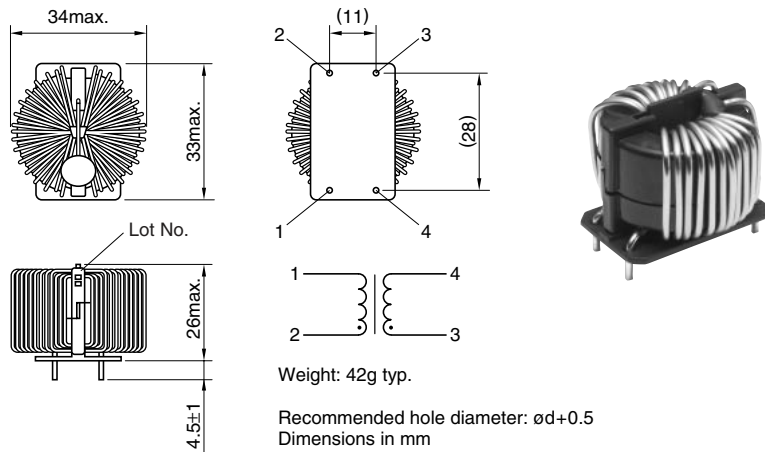
TF2720B	400pieces/box
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EMC Components

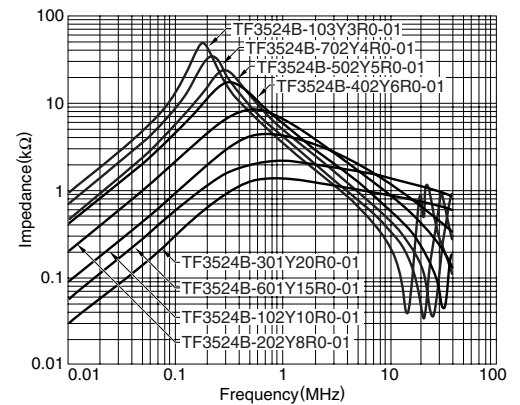
TF Series

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

TF3524B(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	DC resistance (Ω)max.	Rated current (A)max.	Dimensions(mm) ϕd
TF3524B-103Y3R0-01	10	0.15	3	0.7
TF3524B-702Y4R0-01	7	0.1	4	0.8
TF3524B-502Y5R0-01	5	0.05	5	0.9
TF3524B-402Y6R0-01	4	0.035	6	1
TF3524B-202Y8R0-01	2	0.025	8	1.2
TF3524B-102Y10R0-01	1	0.02	10	1.3
TF3524B-601Y15R0-01	0.6	0.007	15	1.6
TF3524B-301Y20R0-01	0.3	0.005	20	1.8

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN"), IEC60065, UL6500, CSA C22.2

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

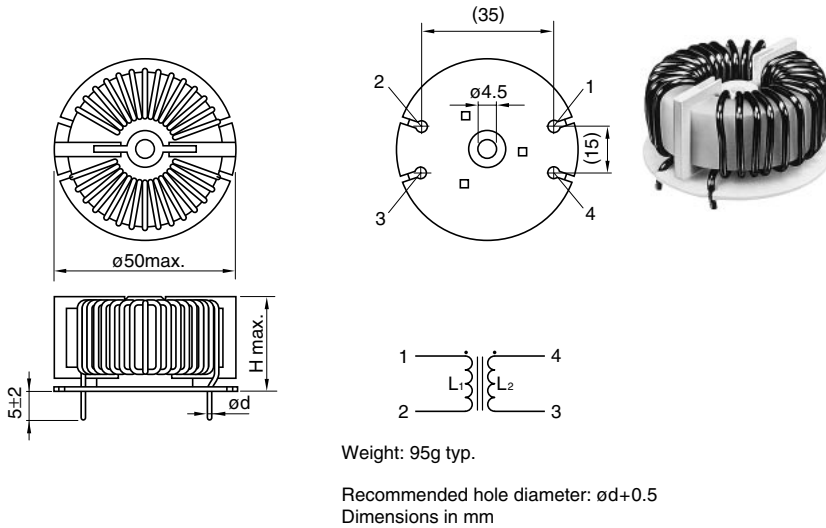
TF3524B	300pieces/box
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EMC Components

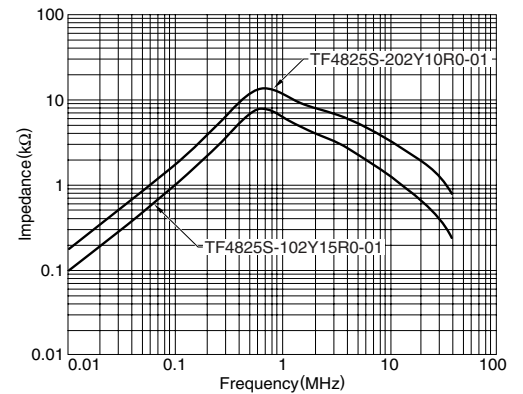
TF Series

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



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	DC resistance (mΩ)max.	Rated current (A)max.	Dimensions(mm)	
				ϕd	H max.
TF4825S-202Y10R0-01	2	20	10	1.3	28
TF4825S-102Y15R0-01	1	7.5	15	1.8	31

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN"), IEC60065, UL6500, CSA C22.2

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

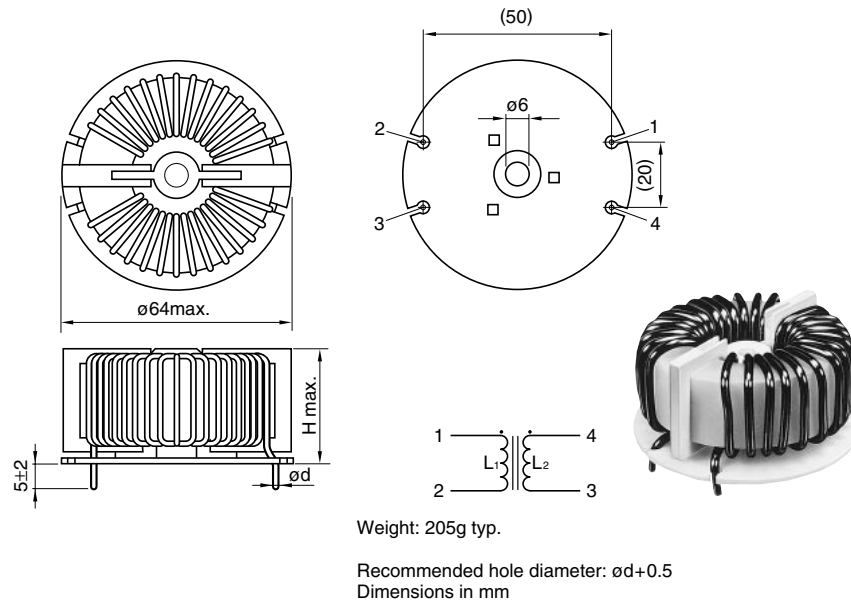
TF4825S	120pieces/box
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EMC Components

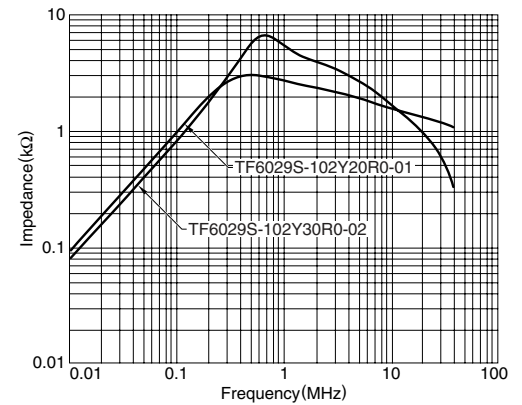
TF Series

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

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



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	DC resistance (mΩ)max.	Rated current (A)max.	Dimensions(mm)	
				ϕd	H max.
TF6029S-102Y20R0-01	1	5	20	2.3	36
TF6029S-102Y30R0-02	1	4	30	2.6	40

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN"), IEC60065, UL6500, CSA C22.2

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

TF6029S	70pieces/box
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EMC Components

TF Series

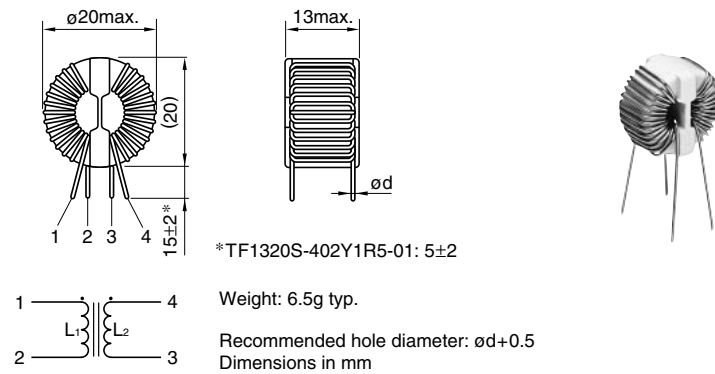
Common Mode Choke Coils(Line Filters) for AC Power Supply Toroidal Core Type

VERTICAL TYPE TF SERIES

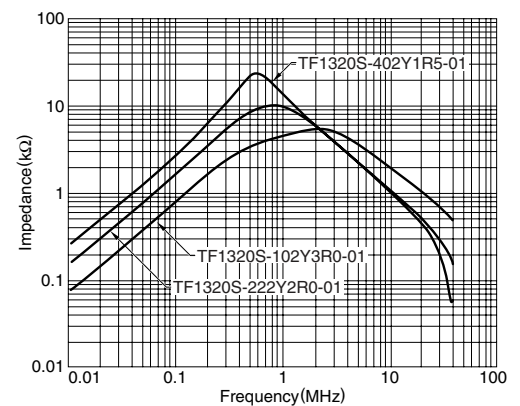
FEATURES

- 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



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	DC resistance (Ω)max.	Rated current (A)max.	Dimensions(mm) ϕd
TF1320S-402Y1R5-01	4	0.2	1.5	0.4
TF1320S-222Y2R0-01	2.2	0.1	2	0.5
TF1320S-102Y3R0-01	1	0.04	3	0.6

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN")

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

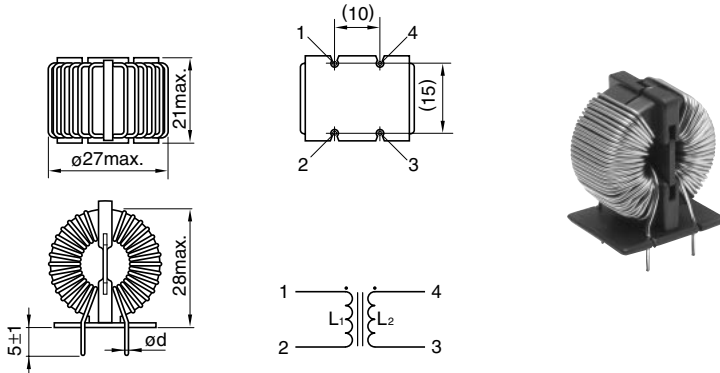
TF1320S	1000pieces/box
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EMC Components

TF Series

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

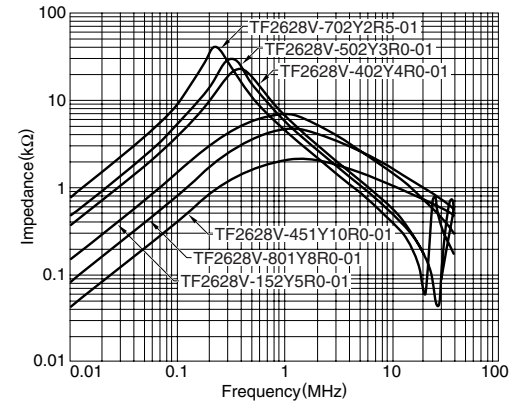
TF2628V(VERTICAL TYPE WITH TERMINAL BASE) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 20g typ.

Recommended hole diameter: $\phi d + 0.5$
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	DC resistance (Ω)max.	Rated current (A)max.	Dimensions(mm) ϕd
TF2628V-702Y2R5-01	7	0.2	2.5	0.6
TF2628V-502Y3R0-01	5	0.15	3	0.65
TF2628V-402Y4R0-01	4	0.1	4	0.7
TF2628V-152Y5R0-01	1.5	0.05	5	0.8
TF2628V-801Y8R0-01	0.8	0.02	8	1
TF2628V-451Y10R0-01	0.45	0.015	10	1.1

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN"), IEC60065, UL6500, CSA C22.2

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

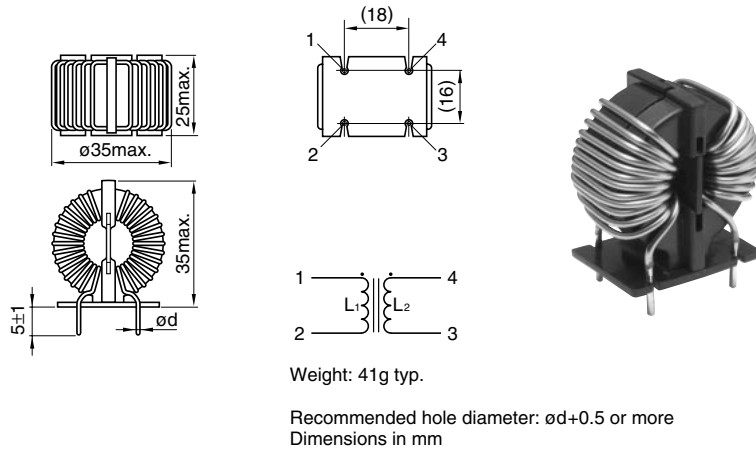
TF2628V	700pieces/box
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EMC Components

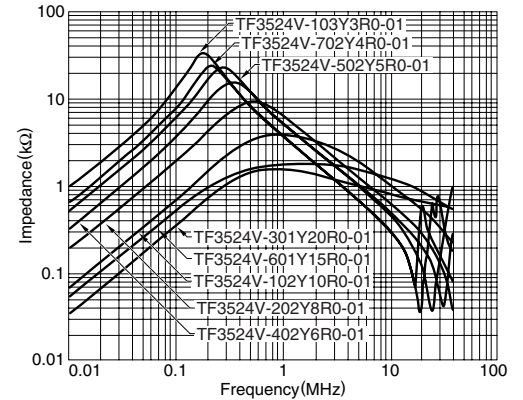
TF Series

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

TF3524V(VERTICAL TYPE WITH TERMINAL BASE) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	DC resistance (Ω)max.	Rated current (A)max.	Dimensions(mm)	
				ϕd	
TF3524V-103Y3R0-01	10	0.15	3	0.7	
TF3524V-702Y4R0-01	7	0.1	4	0.8	
TF3524V-502Y5R0-01	5	0.05	5	0.9	
TF3524V-402Y6R0-01	4	0.035	6	1	
TF3524V-202Y8R0-01	2	0.025	8	1.2	
TF3524V-102Y10R0-01	1	0.02	10	1.3	
TF3524V-601Y15R0-01	0.6	0.007	15	1.6	
TF3524V-301Y20R0-01	0.3	0.005	20	1.8	

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN"), IEC60065, UL6500, CSA C22.2

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

TF3524V	320pieces/box
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EMC Components

TF Series

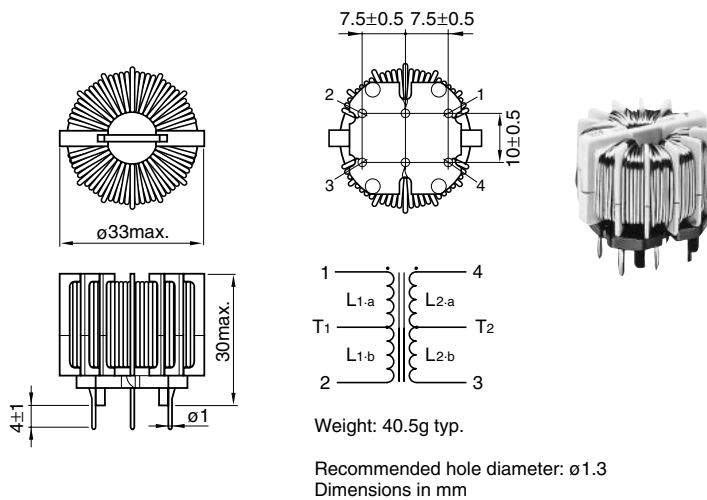
Common Mode Choke Coils(Line Filters) for AC Power Supply Separable Case Type

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

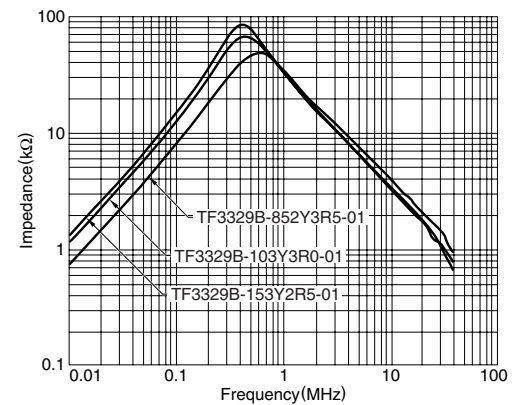
FEATURES

- 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



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	DC resistance (Ω)max.	Rated current (A)max.
TF3329B-153Y2R5-01	15	120	2.5
TF3329B-103Y3R0-01	10	100	3
TF3329B-852Y3R5-01	8.5	70	3.5

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN"), IEC60065, UL6500, CSA C22.2

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

TF3329B	375pieces/box
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EMC Components

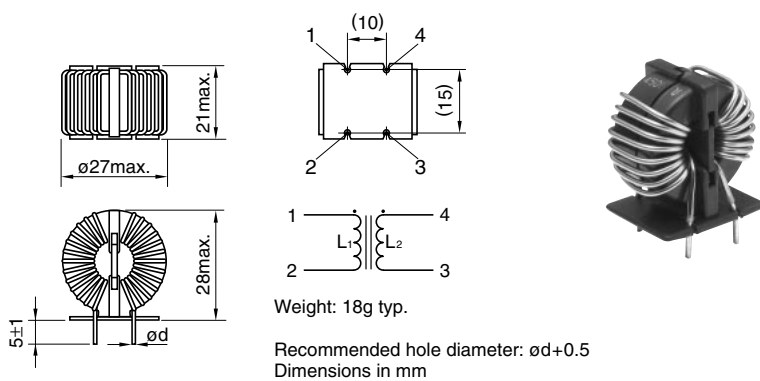
TF Series

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

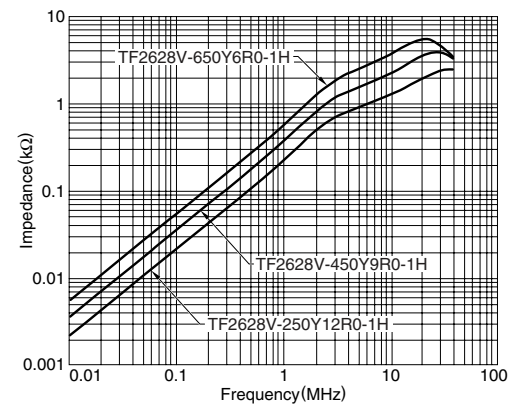
FEATURES

- This series is designed to reduce stray capacity between windings by using a single-layer coil construction on Ni-Zn ferrite cores, which offer excellent high frequency characteristics.
- This series provides excellent noise suppression for high frequency ranges including the FM band.

TF2628V-1H(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μ H)min.	DC resistance (Ω)max.	Rated current (A)max.	Dimensions(mm) ϕd
TF2628V-650Y6R0-1H	65	0.02	6	0.8
TF2628V-450Y9R0-1H	45	0.012	9	1.0
TF2628V-250Y12R0-1H	25	0.009	12	1.2

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN"), IEC60065, UL6500, CSA C22.2

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

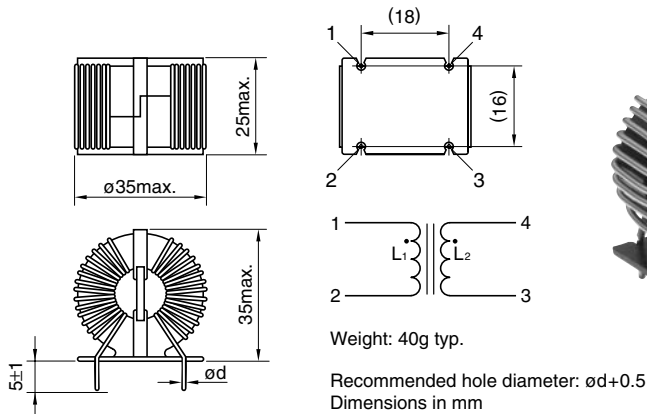
TF2628V	700pieces/box
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EMC Components

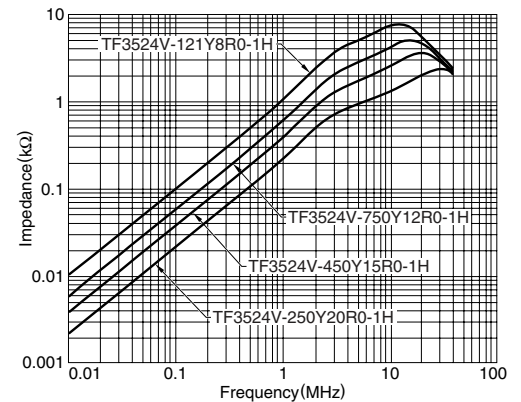
TF Series

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

TF3524V-1H(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μH)min.	DC resistance (Ω)max.	Rated current (A)max.	Dimensions(mm) ϕd
TF3524V-121Y8R0-1H	120	0.02	8	1.0
TF3524V-750Y12R0-1H	75	0.01	12	1.3
TF3524V-450Y15R0-1H	45	0.007	15	1.6
TF3524V-250Y20R0-1H	25	0.005	20	1.8

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN"), IEC60065, UL6500, CSA C22.2

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

TF3524V	320pieces/box
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EMC Components

TF Series

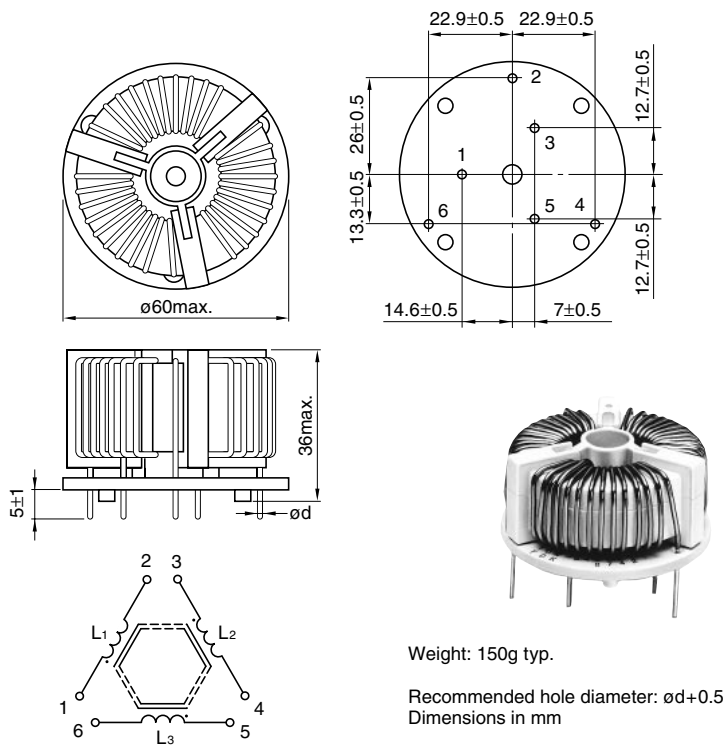
Common Mode Choke Coils(Line Filters) for AC Power Supply Toroidal Core Type for 3-Phase

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.

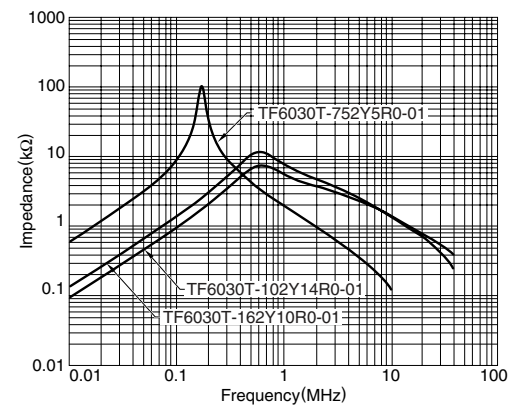
TF6030T(HORIZONTAL TYPE WITH TERMINAL BASE) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 150g typ.

Recommended hole diameter: $\phi d + 0.5$
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH)min.	DC resistance (Ω)max.	Rated current (A)max.	Dimensions(mm)
				ϕd
TF6030T-752Y5R0-01	7.5	0.1	5	0.9
TF6030T-162Y10R0-01	1.6	0.02	10	1.3
TF6030T-102Y14R0-01	1	0.02	14	1.5

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN"), IEC60065, UL6500, CSA C22.2

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

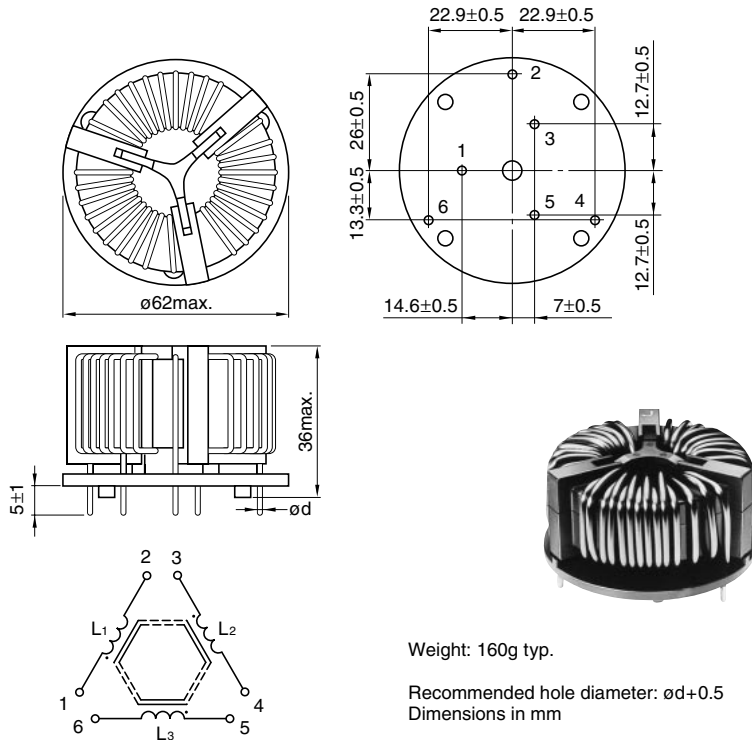
TF6030T	70pieces/box
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EMC Components

TF Series

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

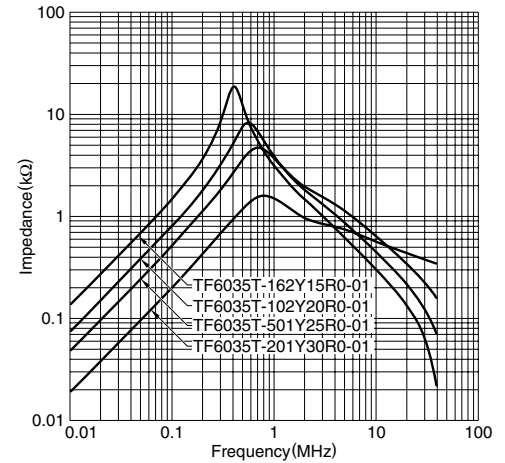
TF6035T (HORIZONTAL TYPE WITH TERMINAL BASE) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



Weight: 160g typ.

Recommended hole diameter: $\phi d + 0.5$
Dimensions in mm

TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Inductance (mH) min.	DC resistance (mΩ) max.	Rated current (A) max.	Dimensions (mm) ϕd
TF6035T-162Y15R0-01	1.6	12	15	1.8
TF6035T-102Y20R0-01	1	8	20	2
TF6035T-501Y25R0-01	0.5	5	25	2.3
TF6035T-201Y30R0-01	0.2	3	30	2.6

APPLICABLE SAFETY STANDARD

Electrical Appliance and Material Safety Law ("DENAN"), IEC60065, UL6500, CSA C22.2

- However, this product is not recognized by each regulations.

PACKAGING QUANTITIES

TF6035T	70 pieces/box
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