

EMC Components

UF Series

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

Compact and Separable Bobbin 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 (M Ω) | 100min. | Between each winding for 1 minute, Edc 500V |
| Temperature rise($^{\circ}$ C) | 45max.* | With line resistance |
| Operating temperature range($^{\circ}$ 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 \times A 2) | Weight (g)typ. | Minimum package quantity (pieces/box) |
|--------|--|----------|-----------------------|-------------------|---|----------------|---------------------------------------|
| UF | Two sections bobbin types | UF1717V | 0.2 to 10mH | 0.25 to 1.6 | 0.6 | 3.5 | 640 |
| | | UF1717H | 0.2 to 10mH | 0.25 to 1.6 | 0.6 | 3.5 | 480 |
| | | UF2327L | 2 to 45mH | 0.5 to 2 | 10 | 17.5 | 1000 |
| | Two sections bobbin types (For high frequency) | UF1717V | 10 to 60 μ H | 1 to 3 | 0.08 | 3 | 640 |
| | | UF1815SG | 50 to 350 μ H | 1 to 5 | 1.2 | 4.6 | 1280 |
| | Four sections bobbin types | UF2327S4 | 2.7 to 45mH | 0.4 to 1.6 | 7.5 | 17.5 | 1000 |

* Handling power=(Inductance value) \times (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 $\square\square\square\square$ V \square - $\square\square\square$ Y \square R \square - 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 \times Height)
- (3)External shape code
- (4)TDK's internal code
- (5)Inductance value
Example) 602: 60 μ H \times 10 2 =6mH
- (6)Rated current value
Example) 2R5: 2.5A
- (7)Product management number

EMC Components

UF Series

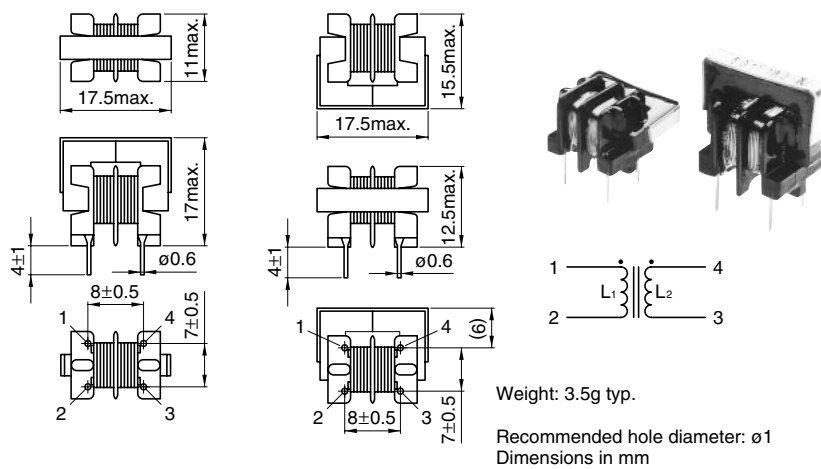
Common Mode Choke Coils(Line Filters) for AC Power Supply Compact and Separable Bobbin Type

TWO SECTIONS BOBBIN TYPE UF SERIES

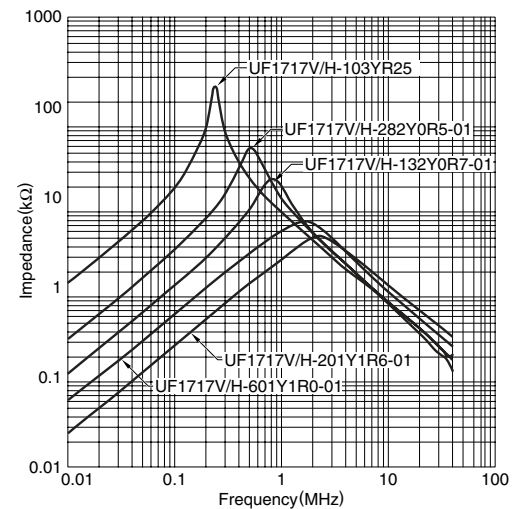
FEATURES

- This series is compact in size due to its use of high permeability ferrite core.

UF1717V/UF1717H(2 SEPARABLE BOBBIN) TYPES SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM UF1717V UF1717H



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

| Part No. | Inductance (mH)min. | DC resistance (Ω)max. | Rated current (A)max. |
|--------------------|---------------------|-----------------------|-----------------------|
| UF1717V-103YR25-02 | 10 | 3.5 | 0.25 |
| UF1717V-702Y0R3-01 | 7 | 2.5 | 0.3 |
| UF1717V-342Y0R4-01 | 3.4 | 1.3 | 0.4 |
| UF1717V-282Y0R5-01 | 2.8 | 1 | 0.5 |
| UF1717V-152Y0R6-01 | 1.5 | 0.55 | 0.6 |
| UF1717V-132Y0R7-01 | 1.3 | 0.5 | 0.7 |
| UF1717V-601Y1R0-01 | 0.6 | 0.2 | 1 |
| UF1717V-201Y1R6-01 | 0.2 | 0.1 | 1.6 |
| UF1717H-103YR25-01 | 10 | 3.5 | 0.25 |
| UF1717H-702Y0R3-01 | 7 | 2.5 | 0.3 |
| UF1717H-342Y0R4-01 | 3.4 | 1.3 | 0.4 |
| UF1717H-282Y0R5-01 | 2.8 | 1 | 0.5 |
| UF1717H-152Y0R6-01 | 1.5 | 0.55 | 0.6 |
| UF1717H-132Y0R7-01 | 1.3 | 0.5 | 0.7 |
| UF1717H-601Y1R0-01 | 0.6 | 0.2 | 1 |
| UF1717H-201Y1R6-01 | 0.2 | 0.1 | 1.6 |

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

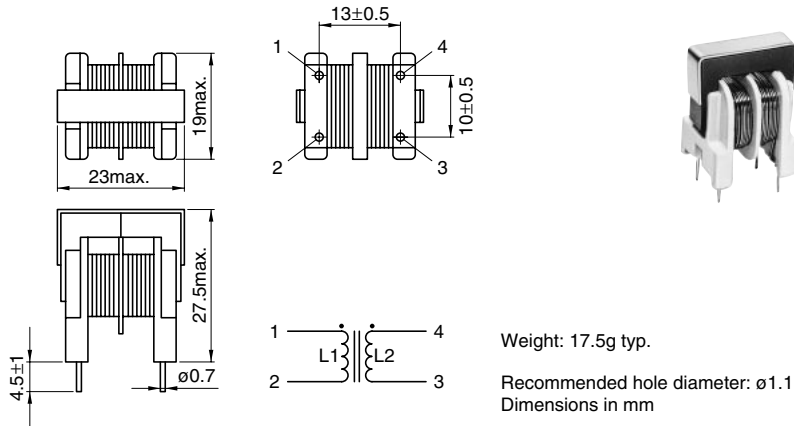
| | |
|---------|---------------|
| UF1717V | 640pieces/box |
| UF1717H | 480pieces/box |

EMC Components

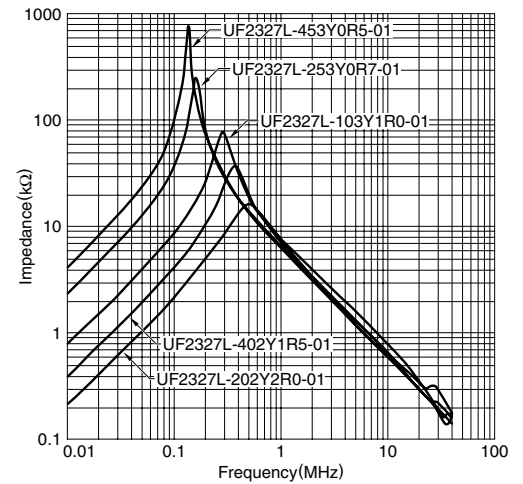
UF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply
Compact and Separable Bobbin Type

UF2327L(2 SEPARABLE BOBBIN) 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. |
|--------------------|---------------------|-----------------------|-----------------------|
| UF2327L-453Y0R5-01 | 45 | 2.3 | 0.5 |
| UF2327L-253Y0R7-01 | 25 | 1.3 | 0.7 |
| UF2327L-103Y1R0-01 | 10 | 0.5 | 1 |
| UF2327L-402Y1R5-01 | 4 | 0.3 | 1.5 |
| UF2327L-202Y2R0-01 | 2 | 0.15 | 2 |

APPLICABLE SAFETY STANDARD

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PACKAGING QUANTITIES

| | |
|---------|----------------|
| UF2327L | 1000pieces/box |
|---------|----------------|

EMC Components

UF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply Compact and Separable Bobbin Type

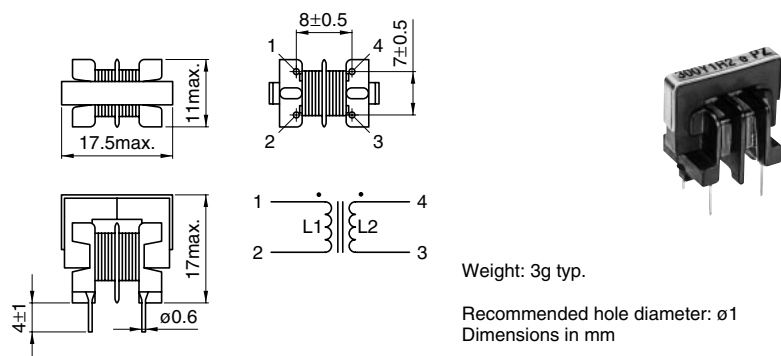
TWO SECTIONS BOBBIN TYPE (FOR HIGH FREQUENCY)

UF SERIES

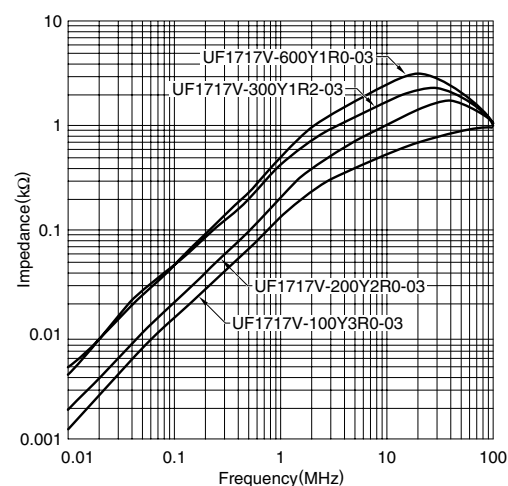
FEATURES

- 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.
- Since the windings are divided into two sections, this filter can also be used as a signal line with excellent withstand voltage.

UF1717V(2 SEPARABLE BOBBIN FOR HIGH FREQUENCY) TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

| Part No. | Inductance (μH)min. | DC resistance (mΩ)max. | Rated current (A)max. |
|--------------------|---------------------|------------------------|-----------------------|
| UF1717V-600Y1R0-03 | 60 | 300 | 1 |
| UF1717V-300Y1R2-03 | 30 | 150 | 1.2 |
| UF1717V-200Y2R0-03 | 20 | 100 | 2 |
| UF1717V-100Y3R0-03 | 10 | 50 | 3 |

APPLICABLE SAFETY STANDARD

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PACKAGING QUANTITIES

| | |
|---------|---------------|
| UF1717V | 640pieces/box |
|---------|---------------|

EMC Components

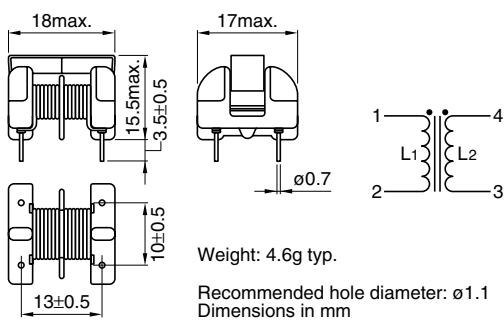
UF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply Compact and Separable Bobbin Type

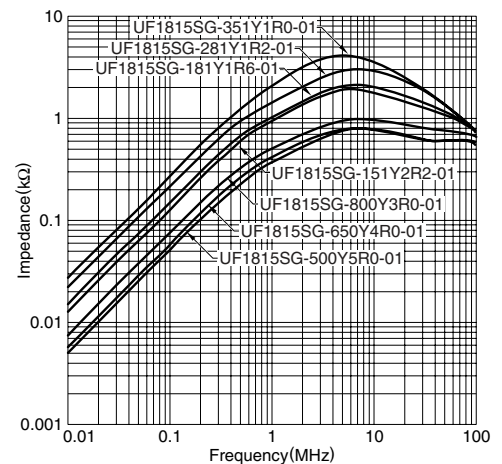
UF1815SG(2 SEPARABLE BOBBIN FOR HIGH FREQUENCY) TYPE FEATURES

- This series uses a Mn-Zn ferrite core and yet it offers excellent noise suppression into the high frequencies due to its low distributed inductance construction based on a single layer winding.
- This compact filter's inductance has been improved by as much as 50% compared to existing products of comparable sizes while its height profile has been reduced by approximately 30%.

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

| Part No. | Inductance (μH)min. | DC resistance (mΩ)max. | Rated current (A)max. |
|---------------------|---------------------|------------------------|-----------------------|
| UF1815SG-351Y1R0-01 | 350 | 300 | 1 |
| UF1815SG-281Y1R2-01 | 280 | 250 | 1.2 |
| UF1815SG-181Y1R6-01 | 180 | 130 | 1.6 |
| UF1815SG-151Y2R2-01 | 150 | 100 | 2.2 |
| UF1815SG-800Y3R0-01 | 80 | 50 | 3 |
| UF1815SG-650Y4R0-01 | 65 | 30 | 4 |
| UF1815SG-500Y5R0-01 | 50 | 25 | 5 |

APPLICABLE SAFETY STANDARD

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

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PACKAGING QUANTITIES

| | |
|----------|----------------|
| UF1815SG | 1280pieces/box |
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EMC Components

UF Series

Common Mode Choke Coils(Line Filters) for AC Power Supply Compact and Separable Bobbin Type

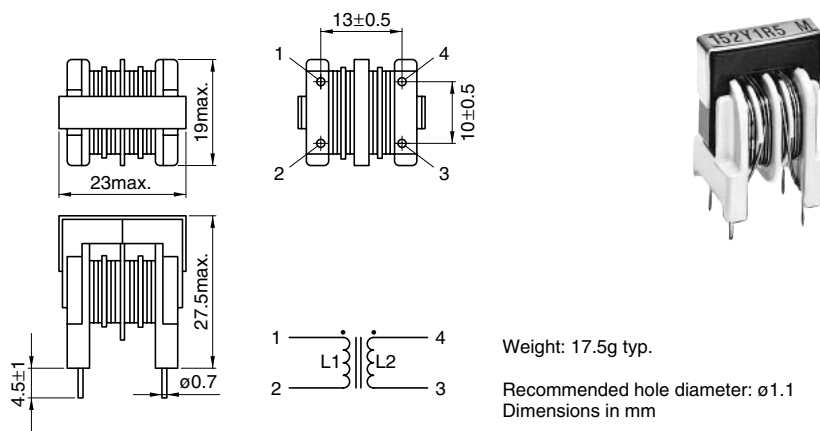
FOUR SECTIONS BOBBIN TYPE

UF SERIES

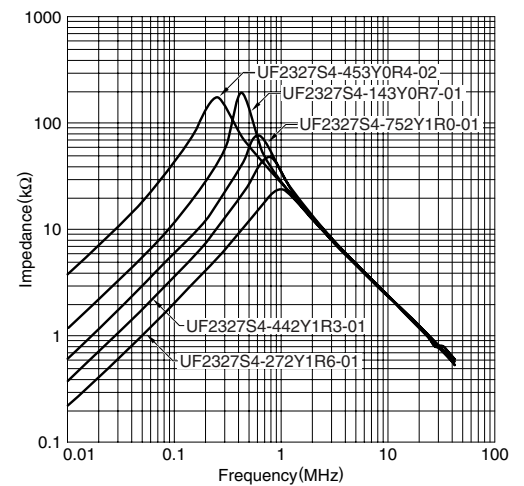
FEATURES

- By using two sections bobbin for each line, this filter provides large inductance, small stray capacity and impedance required for suppressing noise in high frequency ranges.

UF2327S4(FOUR SECTIONS BOBBIN 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. |
|---------------------|---------------------|-----------------------|-----------------------|
| UF2327S4-453Y0R4-02 | 45 | 3 | 0.4 |
| UF2327S4-143Y0R7-01 | 14 | 1 | 0.7 |
| UF2327S4-752Y1R0-01 | 7.5 | 0.55 | 1 |
| UF2327S4-442Y1R3-01 | 4.4 | 0.3 | 1.3 |
| UF2327S4-272Y1R6-01 | 2.7 | 0.2 | 1.6 |

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PACKAGING QUANTITIES

| | |
|----------|----------------|
| UF2327S4 | 1000pieces/box |
|----------|----------------|