



### 3-TERMINAL FILTERS

Feedthrough filter for power line

## YFF-P series

YFF15PC 1005 [0402 inch]\* Feedthrough filter YFF18PC 1608 [0603 inch]\* Feedthrough filter

YFF18PH 1608 [0603 inch]\* Feedthrough filter (thickness: 0.8mm)

YFF18PW 1608 [0603 inch]\* Feedthrough filter (low ESL type)

YFF21PC 2012 [0805 inch]\* Feedthrough filter YFF31PC 3216 [1206 inch]\* Feedthrough filter

<sup>\*</sup> Dimensions code JIS[EIA]



#### **3-TERMINAL FILTERS**

#### Feedthrough filter for power line

Conformity to RoHS directive Compatible with lead-free solders

### **Overview of YFF-P series**

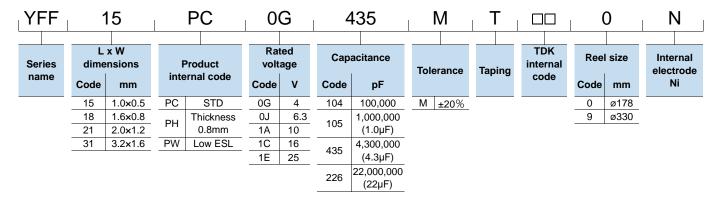
#### FEATURES

- Small and high-performance EMC components.
- OGood attenuation characteristics in a wide frequency band.
- OFor large current (2A to 4A) applications.

#### **APPLICATIONS**

For power lines of of telecommunication terminal devices including smartphones, audio-visual equipment, and information equipment.

#### ■ PART NUMBER CONSTRUCTION



#### ■ PACKAGING STYLE AND SPECIFICATIONS

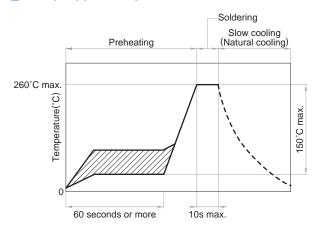
	Package quantit	y (piece/reel)	Unit weight
Туре	ø178	ø330	
	(mm)	(mm)	(g)
YFF15PC	10,000	50,000	0.0008
YFF15PC0G435M	10,000	50,000	0.0015
YFF15PC0G755M	10,000	50,000	0.0027
YFF15PC0G106M	10,000	50,000	0.0029
YFF18PC	4,000	10,000	0.0038
YFF18PH	4,000	10,000	0.0051
YFF18PW	4,000	10,000	0.0038
YFF21PC	4,000	10,000	0.0095
YFF31PC	2,000	10,000	0.0342

- RoHS Directive Compliant Product: See the following for more details.https://product.tdk.com/info/en/environment/rohs/index.html
- O Halogen-free: Indicates that CI content is less than 900ppm, Br content is less than 900ppm, and that the total CI and Br content is less than 1500ppm.

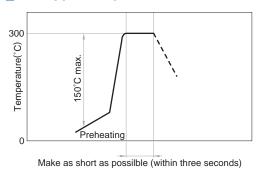
### **Overview of YFF-P series**

#### **RECOMMENDED SOLDERING CONDITION**

#### **□ REFLOW SOLDERING**



#### ☐ HAND SOLDERING



#### REMINDERS FOR USING THESE PRODUCTS

- $\bigcirc$  Before soldering, be sure to preheat components. The  $\Delta T$  preheating temperature must be 150°C max. with attention paid to thermal shock.
- ONatural cooling of components in the air is recommended. On the other hand, when dipping them in a solvent for purposes, such as cleaning, make sure that the temperature difference ( $\Delta T$ ) is 100°C.
- When performing hand soldering for circuit modification, apply the soldering iron to the copper foil area of the printed circuit board for 3 seconds or less. The temperature of the iron tip should not exceed 300°C.
- Ouse a wrist band to discharge static electricity in your body through the grounding wire.
- When incorporating the printed circuit board on which this product is mounted into a frame, etc., do not apply stress to the product through local bending of the board by tightening of screws, etc.

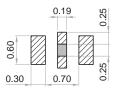


## YFF-P series YFF15PC type

#### ■SHAPE & DIMENSIONS

## C B GND 4 S IN/OUT C B OUT/IN OUT/IN L

#### ■ RECOMMENDED LAND PATTERN



Land pattern+Solder resist
Land pattern
Dimensions in mm

Part No.	L (mm)	W (mm)	T (mm)	B (mm)	C (mm)
YFF15PC0G106MT00□N	1.00±0.20	0.50±0.20	0.50±0.15	0.07min.	0.35±0.10
YFF15PC0G755MT00□N	1.00±0.20	0.50±0.15	0.50±0.15	0.07min.	0.35±0.10
YFF15PC0G435MT00□N	1.05±0.05	0.65±0.05	0.45±0.05	0.09min.	0.30±0.10
YFF15PC0G105MT00□N	1.00±0.05	0.55±0.05	0.30±0.05	0.09min.	0.30±0.10
YFF15PC0J474MT00□N	1.00±0.05	0.55±0.05	0.30±0.05	0.09min.	0.30±0.10
YFF15PC1A224MT00□N	1.00±0.05	0.55±0.05	0.30±0.05	0.09min.	0.30±0.10
YFF15PC1C104MT00□N	1.00±0.05	0.55±0.05	0.30±0.05	0.09min.	0.30±0.10

<sup>\*</sup> Make sure to connect the GND terminal of this product and the GND of the mounting circuit board by using through holes so that the distance between them is the shortest.

#### **ELECTRICAL CHARACTERISTICS**

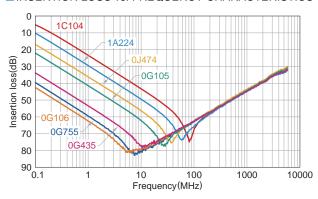
#### **CHARACTERISTICS SPECIFICATION TABLES**

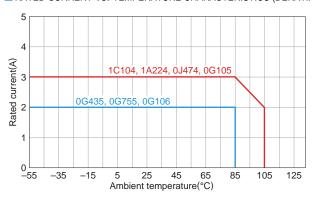
Insertion loss	Rated voltage	Rated current	Operating	Storage temperature	Part No.*
40dB frequency range			temperature range	range	
	Edc	ldc		(After mounting)	
(MHz)	(V)	(A)	(°C)	(°C)	
0.07 to 1000	4	2	-55 to 85	-55 to 85	YFF15PC0G106MT00 ☐ N
0.11 to 1000	4	2	-55 to 85	-55 to 85	YFF15PC0G755MT00 ☐ N
0.2 to 1000	4	2	-55 to 85	-55 to 85	YFF15PC0G435MT00 ☐ N
0.8 to 1000	4	3	-55 to 105	-55 to 105	YFF15PC0G105MT00 ☐ N
2 to 1000	6.3	3	-55 to 105	-55 to 105	YFF15PC0J474MT00 ☐ N
4 to 1000	10	3	-55 to 105	-55 to 105	YFF15PC1A224MT00 ☐ N
9 to 1000	16	3	-55 to 105	-55 to 105	YFF15PC1C104MT00 ☐ N

 $<sup>^{\</sup>ast}$  The part numbers are TDK's standard specification products.

#### **■ELECTRICAL CHARACTERISTICS GRAPH**

#### ☐ INSERTION LOSS vs. FREQUENCY CHARACTERISTICS





<sup>\* :</sup> Reel size code, 0 (ø178) or 9 (ø330).

A Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

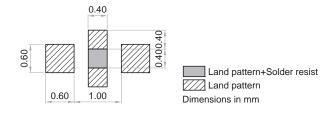


## YFF-P series YFF18PC type

#### ■SHAPE & DIMENSIONS

## 0.40±0.10 0.10min. GND 4 1 OUT/IN OUT/IN

#### RECOMMENDED LAND PATTERN



\* Make sure to connect the GND terminal of this product and the GND of the mounting circuit board by using through holes so that the distance between them is the shortest.

#### ■ ELECTRICAL CHARACTERISTICS

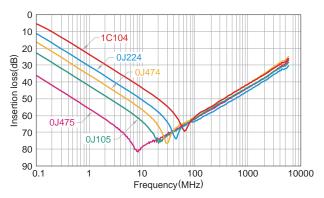
#### **CHARACTERISTICS SPECIFICATION TABLES**

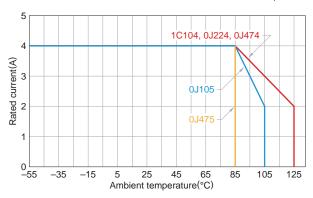
Insertion loss 40dB frequency range	Rated voltage	Rated current	Operating temperature range	Storage temperature range	Part No.*
	Edc	ldc		(After mounting)	
(MHz)	(V)	(A)	(°C)	(°C)	
0.2 to 1000	6.3	4	-55 to 85	-55 to 85	YFF18PC0J475MT0H□N
0.8 to 1000	6.3	4	-55 to 105	–55 to 105	YFF18PC0J105MT0H□N
2 to 1000	6.3	4	-55 to 125	-55 to 125	YFF18PC0J474MT0H□N
3 to 1000	6.3	4	-55 to 125	-55 to 125	YFF18PC0J224MT0H□N
7 to 1000	16	4	-55 to 125	-55 to 125	YFF18PC1C104MT0H□N

 $<sup>^{\</sup>ast}$  The part numbers are TDK's standard specification products.

#### **■ELECTRICAL CHARACTERISTICS GRAPH**

#### ☐ INSERTION LOSS vs. FREQUENCY CHARACTERISTICS





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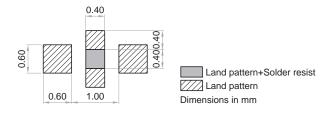


## YFF-P series YFF18PH type

#### ■SHAPE & DIMENSIONS

## 0.40±0.10 0.10min. GND 1 N/OUT 2 GND 1.60±0.20

#### RECOMMENDED LAND PATTERN



\* Make sure to connect the GND terminal of this product and the GND of the mounting circuit board by using through holes so that the distance between them is the shortest.

#### **ELECTRICAL CHARACTERISTICS**

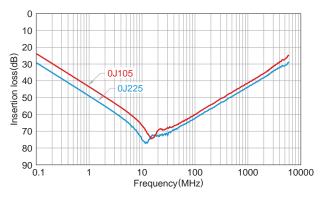
#### **CHARACTERISTICS SPECIFICATION TABLES**

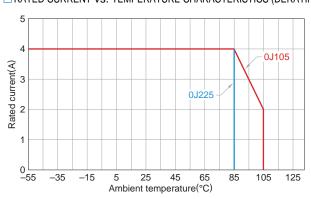
Insertion loss	Rated voltage	Rated current	Operating	Storage temperature	Part No.*
40dB frequency range			temperature range	range	
	Edc	ldc		(After mounting)	
(MHz)	(V)	(A)	(°C)	(°C)	
0.4 to 1000	6.3	4	-55 to 85	-55 to 85	YFF18PH0J225MT00□N
0.8 to 1000	6.3	4	-55 to 105	-55 to 105	YFF18PH0J105MT00□N

<sup>\*</sup> The part numbers are TDK's standard specification products.

#### **ELECTRICAL CHARACTERISTICS GRAPH**

#### ☐ INSERTION LOSS vs. FREQUENCY CHARACTERISTICS





<sup>\* □:</sup> Reel size code, 0 (ø178) or 9 (ø330).

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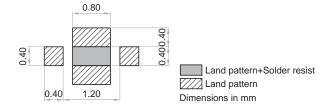


## YFF-P series YFF18PW type

#### **SHAPE & DIMENSIONS**

#### 0.15±0.10 GND 4 0.15±0.10 0.15±0.10 0.15±0.10 0.

#### RECOMMENDED LAND PATTERN



\* Make sure to connect the GND terminal of this product and the GND of the mounting circuit board by using through holes so that the distance between them is the shortest.

#### **ELECTRICAL CHARACTERISTICS**

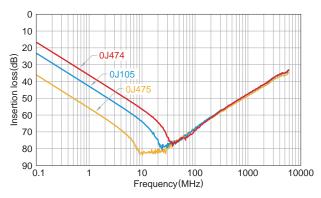
#### **CHARACTERISTICS SPECIFICATION TABLES**

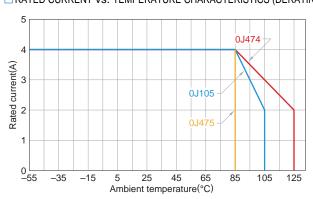
Insertion loss	Rated voltage	Rated current	Operating	Storage temperature	Part No.*
40dB frequency range			temperature range	range	
	Edc	ldc		(After mounting)	
(MHz)	(V)	(A)	(°C)	(°C)	
0.2 to 2000	6.3	4	-55 to 85	-55 to 85	YFF18PW0J475MT0H□N
0.8 to 2000	6.3	4	-55 to 105	-55 to 105	YFF18PW0J105MT0H□N
2 to 2000	6.3	4	-55 to 125	-55 to 125	YFF18PW0J474MT0H□N

<sup>\*</sup> The part numbers are TDK's standard specification products.

#### **■ELECTRICAL CHARACTERISTICS GRAPH**

#### ☐ INSERTION LOSS vs. FREQUENCY CHARACTERISTICS





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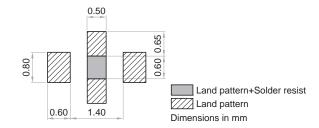


## YFF-P series YFF21PC type

#### **SHAPE & DIMENSIONS**

# 0.45±0.15 0.20min. GND 4 OUT/IN 2 GND 2.00±0.20

#### ■ RECOMMENDED LAND PATTERN



Make sure to connect the GND terminal of this product and the GND of the mounting circuit board by using through holes so that the distance between them is the shortest.

#### **ELECTRICAL CHARACTERISTICS**

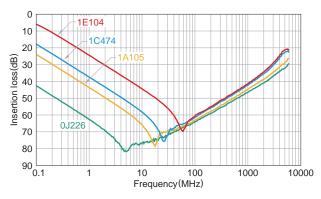
#### **CHARACTERISTICS SPECIFICATION TABLES**

Insertion loss 40dB frequency range	Rated voltage	Rated current	Operating temperature range	Storage temperature range	Part No.*	
	Edc	ldc		(After mounting)		
(MHz)	(V)	(A)	(°C)	(°C)		
0.04 to 1000	6.3	4	-55 to 85	-55 to 85	YFF21PC0J226MT00□N	
0.7 to 1000	10	4	-55 to 85	-55 to 85	YFF21PC1A105MT00□N	
2 to 1000	16	2	-55 to 125	-55 to 125	YFF21PC1C474MT00□N	
7 to 1000	25	2	-55 to 125	-55 to 125	YFF21PC1E104MT00□N	

<sup>\*</sup> The part numbers are TDK's standard specification products.

#### **ELECTRICAL CHARACTERISTICS GRAPH**

#### ☐ INSERTION LOSS vs. FREQUENCY CHARACTERISTICS



 $<sup>^*</sup>$   $\square$ : Reel size code, 0 (ø178) or 9 (ø330).

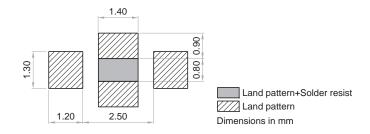


## YFF-P series YFF31PC type

#### ■SHAPE & DIMENSIONS

#### 0.95±0.25 GND 4 0.40±0.30 GND 4 0UT/IN 0UT/IN 0.40±0.30 3 OUT/IN

#### ■ RECOMMENDED LAND PATTERN



#### **ELECTRICAL CHARACTERISTICS**

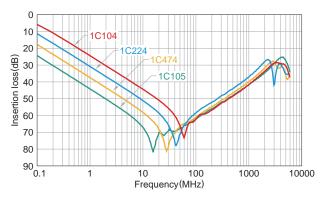
#### **CHARACTERISTICS SPECIFICATION TABLES**

	ertion loss IB frequency range Iz)	Rated voltage Edc (V)	Rated current Idc (A)	Operating temperature range	Storage temperature range (After mounting) (°C)	Part No.*
0.7	to 1000	16	2	-55 to 125	-55 to 125	YFF31PC1C105MT00□N
2	to 1000	16	2	-55 to 125	-55 to 125	YFF31PC1C474MT00□N
3	to 600	16	2	-55 to 125	-55 to 125	YFF31PC1C224MT00□N
7	to 1000	16	2	-55 to 125	-55 to 125	YFF31PC1C104MT00□N

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#### **■ELECTRICAL CHARACTERISTICS GRAPH**

#### ☐ INSERTION LOSS vs. FREQUENCY CHARACTERISTICS



<sup>\*</sup> Make sure to connect the GND terminal of this product and the GND of the mounting circuit board by using through holes so that the distance between them is the shortest.

<sup>\* :</sup> Reel size code, 0 (ø178) or 9 (ø330).

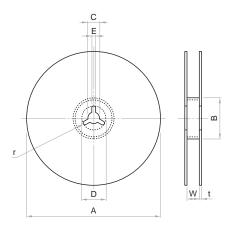
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### YFF-P series

## Packaging style

#### REEL DIMENSIONS



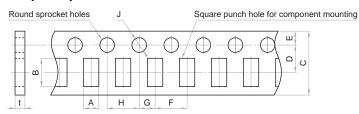
Dimensions in mm

Dimensions in: mm

Reel	A	В	С	D	E	W	t	r
ø178	ø178±2.0	ø60±2.0	ø13±0.5	ø21±0.8	2.0±0.5	9.0±0.3	2.0±0.05	1.0
ø330	ø382 max.(ø330 nom.)	ø50 min.	ø13±0.5	ø21±0.8	2.0±0.5	10.0±1.5	2.0±0.05	1.0

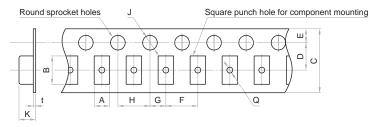
#### **TAPE DIMENSIONS**

#### □Paper tape



									Dime	ensions in: mm
Туре	Α	В	С	D	E	F	G	Н	J	t
YFF15PC	0.62 typ.	1.12 typ.								0.7 max.
YFF15PC0G435M	0.75 typ	1.18 typ.		3.50±0.05	1.75±0.10	2.00±0.05	2.00±0.05	4.00±0.10	ø1.5+0.1/–0	U.7 IIIax.
YFF15PC0G755M	0.75 typ	1.30 typ.	-0.00±0.30		1.75±0.10					0.8 max.
YFF15PC0G106M	0.77 typ.	1.30 typ.	<del></del>							U.O IIIAX.
YFF18PC										_
YFF18PH	1.10 typ.	1.90 typ.	$8.00 \pm 0.30$	$3.50 \pm 0.05$	1.75±0.10	4.00±0.10	2.00±0.05	4.00±0.10	ø1.5+0.1/-0	1.2 max.
YFF18PW										
YFF21PC	1.50 typ.	2.30 typ.	8.00±0.30	3.50±0.05	1.75±0.10	4.00±0.10	2.00±0.05	4.00±0.10	ø1.5+0.1/–0	1.2 max.

#### □Plastic tape



Dimensions in: mm

Туре	Α	В	С	D	Е	F	G	Н	J	K	t	Q
YFF31PC	1.90 typ.	3.50 typ.	8.0±0.3	3.5±0.05	1.75±0.1	4.00±0.1	2.0±0.05	4.00±0.1	ø1.5+0.1/-0	2.50 max.	0.30 max.	ø0.50 max.

#### **X-ON Electronics**

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