



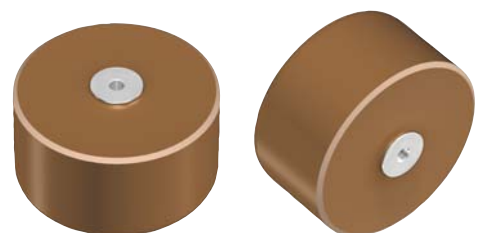
# Ultra high voltage ceramic capacitors

With metal terminals

For high voltage power supplies/lasers

## FHV series

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**REMINDERS FOR USING THESE PRODUCTS**
**(1) During transportation and storage**

Do not transport or store where the products will be exposed to high temperature or high humidity.

Do not expose to poisonous gases such as H<sub>2</sub>SO<sub>4</sub>, HCl, or HNO<sub>3</sub>.

Avoid excessive impact such as that caused by falling.

**(2) During operation**

Avoid contact with electrolytes such as perspiration. Do not touch with bare hands.

Avoid excessive impact such as that caused by falling.

Do not apply solder to stud terminals.

Do not re-machine the terminals.

**(3) Usage**

Make sure that the products are not exposed to radiant heat from chambers or transformers.

**(4) Others**

The products listed on this catalog are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.

If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.

(1) Aerospace/aviation equipment

(2) Transportation equipment (cars, electric trains, ships, etc.)

(3) Medical equipment

(4) Power-generation control equipment

(5) Atomic energy-related equipment

(6) Seabed equipment

(7) Transportation control equipment

(8) Public information-processing equipment

(9) Military equipment

(10) Electric heating apparatus, burning equipment

(11) Disaster prevention/crime prevention equipment

(12) Safety equipment

(13) Other applications that are not considered general-purpose applications

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

# Ultra high voltage ceramic capacitors

With metal terminals

For high voltage power supplies/lasers

## Overview of FHV series

### FEATURES

- A lineup with a rated voltage of Edc : 15 to 50kV
- High capacitance and excellent temperature characteristics
- Excellent voltage-capacitance characteristics
- Low-loss and low distortion factor
- Metal screw terminals for easy mounting
- Uses high-reliability mold resin


### APPLICATION

High-voltage power circuits (for medical devices, lithography, industrial analyzers)

### OPERATING TEMPERATURE RANGE, PRODUCT WEIGHT

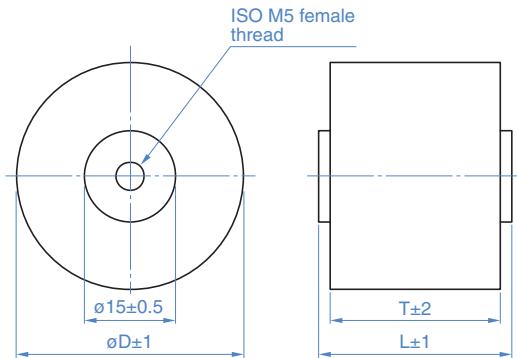
Part No.	Sub part No.	Temperature range		Individual weight (g)
		Operating temperature (°C)	Storage temperature (°C)	
<b>FHV-153AN</b>	60750YS702K4CDA	-30 to +85	-30 to +85	153
<b>FHV-1AN</b>	60729YS172K4DDA	-30 to +85	-30 to +85	75
<b>FHV-2AN</b>	60739YS302K4DDA	-30 to +85	-30 to +85	116
<b>FHV-3AN</b>	60750YS522K4DDA	-30 to +85	-30 to +85	174
<b>FHV-4AN</b>	60729YS122K4FDA	-30 to +85	-30 to +85	92
<b>FHV-5AN</b>	60739YS212K4FDA	-30 to +85	-30 to +85	144
<b>FHV-6AN</b>	60750YS352K4FDA	-30 to +85	-30 to +85	219
<b>FHV-7AN</b>	60729YS851K4GDA	-30 to +85	-30 to +85	108
<b>FHV-8AN</b>	60739YS152K4GDA	-30 to +85	-30 to +85	174
<b>FHV-9AN</b>	60750YS262K4GDA	-30 to +85	-30 to +85	267
<b>FHV-10AN</b>	60729YS701K4HDA	-30 to +85	-30 to +85	123
<b>FHV-11AN</b>	60739YS132K4HDA	-30 to +85	-30 to +85	195
<b>FHV-12AN</b>	60750YS212K4HDA	-30 to +85	-30 to +85	308

○ RoHS Directive Compliant Product: See the following for more details.<https://product.tdk.com/info/en/environment/rohs/index.html>

 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.

# FHV series

## SHAPE & DIMENSIONS



## MARKINGS

FHV-5AN	Part No.
212K	Nominal capacitance and tolerance code
DC30kV	Rated voltage
TDK	Manufacturer's name (TDK or TDK logo mark)
1234	Lot No.

Part No.	Sub part No.	$\phi D$ (mm)	T (mm)	L (mm)
FHV-153AN	60750YS702K4CDA	60	17	21
FHV-1AN	60729YS172K4DDA	38	19	23
FHV-2AN	60739YS302K4DDA	48	19	23
FHV-3AN	60750YS522K4DDA	60	19	23
FHV-4AN	60729YS122K4FDA	38	22	26
FHV-5AN	60739YS212K4FDA	48	22	26
FHV-6AN	60750YS352K4FDA	60	22	26
FHV-7AN	60729YS851K4GDA	38	26	30
FHV-8AN	60739YS152K4GDA	48	26	30
FHV-9AN	60750YS262K4GDA	60	26	30
FHV-10AN	60729YS701K4HDA	38	29	33
FHV-11AN	60739YS132K4HDA	48	29	33
FHV-12AN	60750YS212K4HDA	60	29	33

# FHV series

## ELECTRICAL CHARACTERISTICS

### CHARACTERISTICS SPECIFICATION TABLES

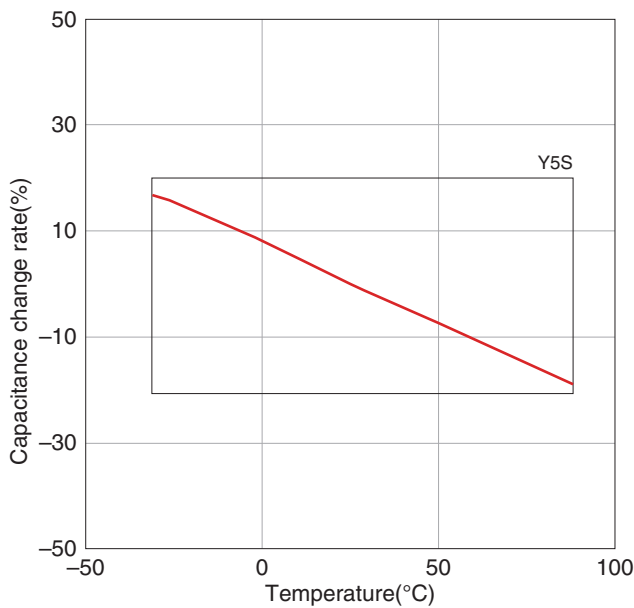
Class 2 (Temperature stable)

Temperature characteristics: Y5S(-30 to +85°C, ±22%)

Part No.	Sub part No.	Rated voltage	Capacitance	Withstanding voltage [1min, in oil]	Dissipation factor (tanδ)	Insulation resistance	AC corona starting voltage [3PC*] (kVAC) min.
		(kV)	(pF)	(kV)	(%) max.	(MΩ) min.	
FHV-153AN	60750YS702K4CDA	15	7,000±10%	22.5	0.2	100000	7.5
FHV-1AN	60729YS172K4DDA	20	1,700±10%	30	0.2	100000	10
FHV-2AN	60739YS302K4DDA	20	3,000±10%	30	0.2	100000	10
FHV-3AN	60750YS522K4DDA	20	5,200±10%	30	0.2	100000	10
FHV-4AN	60729YS122K4FDA	30	1,200±10%	45	0.2	100000	15
FHV-5AN	60739YS212K4FDA	30	2,100±10%	45	0.2	100000	15
FHV-6AN	60750YS352K4FDA	30	3,500±10%	45	0.2	100000	15
FHV-7AN	60729YS851K4GDA	40	850±10%	60	0.2	100000	20
FHV-8AN	60739YS152K4GDA	40	1,500±10%	60	0.2	100000	20
FHV-9AN	60750YS262K4GDA	40	2,600±10%	60	0.2	100000	20
FHV-10AN	60729YS701K4HDA	50	700±10%	75	0.2	100000	25
FHV-11AN	60739YS132K4HDA	50	1,300±10%	75	0.2	100000	25
FHV-12AN	60750YS212K4HDA	50	2,100±10%	75	0.2	100000	25

\* PC : Pico coulomb.

### CAPACITANCE VS. TEMPERATURE CHARACTERISTICS



### CAPACITANCE VS. DC BIAS CHARACTERISTICS

