



Ultra High Voltage Ceramic Capacitors

With metal terminals

For high voltage power supplies/lasers

FHV series

FHV-153AN

FHV-1AN to FHV-12AN



PRECAUTIONS

(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_2SO_4 , HCl , or HNO_3 .

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 (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

Product compatible with RoHS directive

With metal terminals

For high voltage power supplies/lasers

Overview of the FHV Series

FEATURES

- Low-loss and low distortion factor.
- Good voltage characteristics.
- Metal screw terminals for easy mounting.
- This series has high-capacitance and excellent temperature characteristics (Y5S).

APPLICATION

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

OPERATING TEMPERATURE RANGE, PRODUCT WEIGHT

Part No.	Temperature range		Individual weight
	Operating temperature	Storage temperature	
	(°C)	(°C)	
FHV-153AN	-30 to +85	-30 to +85	153
FHV-1AN	-30 to +85	-30 to +85	75
FHV-2AN	-30 to +85	-30 to +85	116
FHV-3AN	-30 to +85	-30 to +85	174
FHV-4AN	-30 to +85	-30 to +85	92
FHV-5AN	-30 to +85	-30 to +85	144
FHV-6AN	-30 to +85	-30 to +85	219
FHV-7AN	-30 to +85	-30 to +85	108
FHV-8AN	-30 to +85	-30 to +85	174
FHV-9AN	-30 to +85	-30 to +85	267
FHV-10AN	-30 to +85	-30 to +85	123
FHV-11AN	-30 to +85	-30 to +85	195
FHV-12AN	-30 to +85	-30 to +85	308

○ RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. <http://www.tdk.co.jp/rohs/>

• All specifications are subject to change without notice.

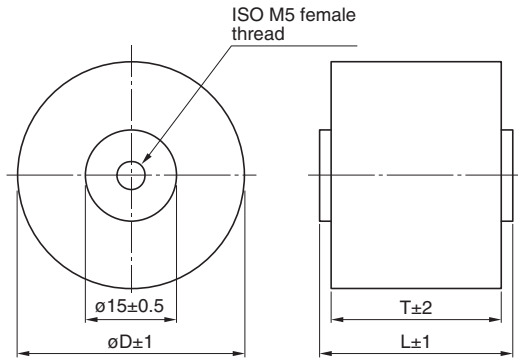
FHV series

FHV-153AN, FHV-1AN to FHV-12AN



■ SHAPE & DIMENSIONS

Molded type



Part No.	ϕD	T	L
FHV-153AN	60	17	21
FHV-1AN	38	19	23
FHV-2AN	48	19	23
FHV-3AN	60	19	23
FHV-4AN	38	22	26
FHV-5AN	48	22	26
FHV-6AN	60	22	26
FHV-7AN	38	26	30
FHV-8AN	48	26	30
FHV-9AN	60	26	30
FHV-10AN	38	29	33
FHV-11AN	48	29	33
FHV-12AN	60	29	33

□ MARKING

Item	Marking example
1. Part No.	1 → FHV-5A
2. Nominal capacitance and tolerance code	2 → 172K
3. Rated voltage	3 → 30kV
4. Manufacturer's name (TDK or TDK logo mark)	4 → TDK
5. Lot No.	5 → 1234

FHV series **FHV-153AN, FHV-1AN to FHV-12AN**

■ ELECTRICAL CHARACTERISTICS

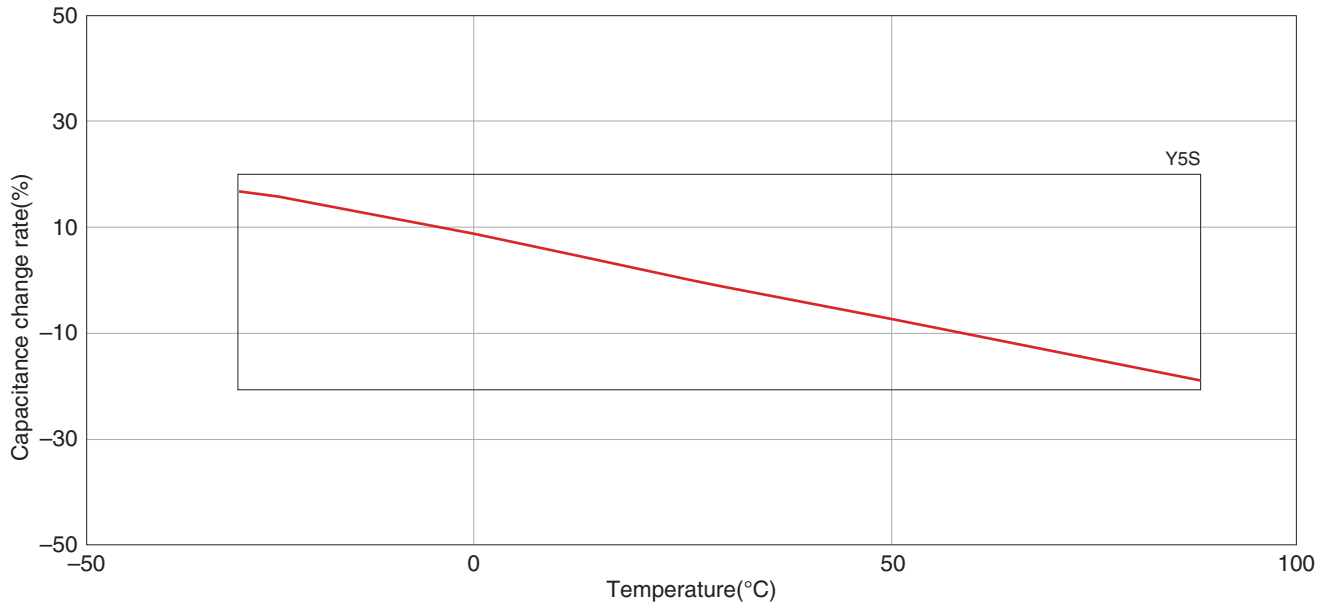
□ CHARACTERISTICS SPECIFICATION TABLE

Class 2 (Temperature Stable)

Temperature Characteristics: Y5S (−30 to +85°C, ±22%)

Part No.	Rated voltage	Capacitance	Withstanding voltage	Dissipation factor (tanδ)	Insulation resistance	AC Corona starting voltage
	(kV)	(pF)±10% nom.	(kV) [1min, in oil]	(%) max.	(MΩ) min.	(kV) min. [3PC*]
FHV-153AN	15	7,000	22.5	0.2	100000	7.5
FHV-1AN	20	1,700	30	0.2	100000	10
FHV-2AN	20	3,000	30	0.2	100000	10
FHV-3AN	20	5,200	30	0.2	100000	10
FHV-4AN	30	1,200	45	0.2	100000	15
FHV-5AN	30	2,100	45	0.2	100000	15
FHV-6AN	30	3,500	45	0.2	100000	15
FHV-7AN	40	850	60	0.2	100000	20
FHV-8AN	40	1,500	60	0.2	100000	20
FHV-9AN	40	2,600	60	0.2	100000	20
FHV-10AN	50	700	75	0.2	100000	25
FHV-11AN	50	1,300	75	0.2	100000	25
FHV-12AN	50	2,100	75	0.2	100000	25

* PC : Pico coulomb.

FHV series **FHV-153AN, FHV-1AN to FHV-12AN****ELECTRICAL CHARACTERISTICS****CAPACITANCE VS. TEMPERATURE CHARACTERISTICS****CAPACITANCE VS. DC BIAS CHARACTERISTICS**