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TDK

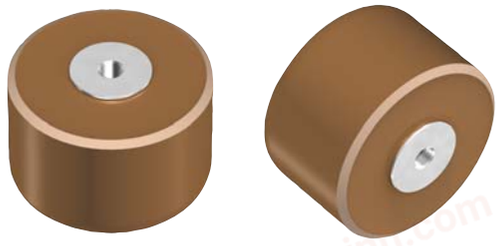
February 2017

Ultra high voltage ceramic capacitors

With metal terminals

For high voltage power supplies/lasers

UHV series



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⚠ REMINDERS FOR USING THESE PRODUCTS

(1) During transportation and storage
Do not transport or store where the prodcuts 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 prodcuts 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.

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Ultra high voltage ceramic capacitors

Product compatible with RoHS directive

With metal terminals

For high voltage power supplies/lasers

Overview of UHV series

FEATURES

- A lineup with a rated voltage of Edc：20 to 50kV
- low ESR
- Low-loss and low distortion factor
- Molded type 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
		Operating temperature (°C)	Storage temperature (°C)	(g)
UHV-221A	60711ZT201K4DDA	–30 to +85	–30 to +85	14
UHV-222A	60716ZT401K4DDA	–30 to +85	–30 to +85	25
UHV-223A	60721ZT701K4DDA	–30 to +85	–30 to +85	40
UHV-224A	60725ZT102K4DDA	–30 to +85	–30 to +85	53
UHV-1A	60729ZT142K4DDA	–30 to +85	–30 to +85	75
UHV-2A	60739ZT252K4DDA	–30 to +85	–30 to +85	115
UHV-3A	60750ZT402K4DDA	–30 to +85	–30 to +85	170
UHV-231A	60713ZT201K4FDA	–30 to +85	–30 to +85	28
UHV-232A	60719ZT401K4FDA	–30 to +85	–30 to +85	46
UHV-233A	60725ZT701K4FDA	–30 to +85	–30 to +85	63
UHV-4A	60729ZT941K4FDA	–30 to +85	–30 to +85	83
UHV-5A	60739ZT172K4FDA	–30 to +85	–30 to +85	138
UHV-6A	60750ZT272K4FDA	–30 to +85	–30 to +85	210
UHV-241A	60711ZT101K4GDA	–30 to +85	–30 to +85	22
UHV-242A	60716ZT201K4GDA	–30 to +85	–30 to +85	38
UHV-243A	60722ZT401K4GDA	–30 to +85	–30 to +85	72
UHV-7A	60729ZT701K4GDA	–30 to +85	–30 to +85	112
UHV-8A	60739ZT132K4GDA	–30 to +85	–30 to +85	173
UHV-9A	60750ZT202K4GDA	–30 to +85	–30 to +85	261
UHV-251A	60712ZT101K4HDA	–30 to +85	–30 to +85	25
UHV-252A	60718ZT201K4HDA	–30 to +85	–30 to +85	61
UHV-253A	60726ZT401K4HDA	–30 to +85	–30 to +85	88
UHV-10A	60729ZT561K4HDA	–30 to +85	–30 to +85	126
UHV-11A	60739ZT102K4HDA	–30 to +85	–30 to +85	199
UHV-12A	60750ZT172K4HDA	–30 to +85	–30 to +85	297

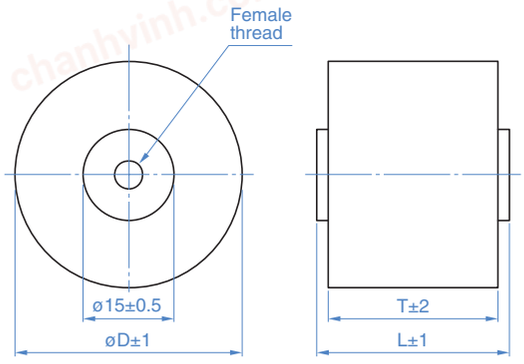
- RoHS Directive Compliant Product: See the following for more details.https://product.tdk.com/info/en/environment/rohs/index.html

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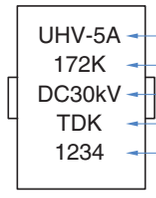
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SHAPE & DIMENSIONS



MARKINGS



Part No.
Nominal capacitance and tolerance code
Rated voltage
Manufacturer's name (TDK or TDK logo mark)
Lot No.

Part No.	Sub part No.	øD (mm)	T (mm)	L (mm)	Internal screw
UHV-221A	60711ZT201K4DDA	20	19	23	ISO M4
UHV-222A	60716ZT401K4DDA	25	19	23	ISO M4
UHV-223A	60721ZT701K4DDA	30	19	23	ISO M4
UHV-224A	60725ZT102K4DDA	34	19	23	ISO M4
UHV-1A	60729ZT142K4DDA	38	19	23	ISO M5
UHV-2A	60739ZT252K4DDA	48	19	23	ISO M5
UHV-3A	60750ZT402K4DDA	60	19	23	ISO M5
UHV-231A	60713ZT201K4FDA	25	22	25	ISO M4
UHV-232A	60719ZT401K4FDA	30	22	25	ISO M4
UHV-233A	60725ZT701K4FDA	34	22	25	ISO M4
UHV-4A	60729ZT941K4FDA	38	22	25	ISO M5
UHV-5A	60739ZT172K4FDA	48	22	25	ISO M5
UHV-6A	60750ZT272K4FDA	60	22	25	ISO M5
UHV-241A	60711ZT101K4GDA	20	28	32	ISO M4
UHV-242A	60716ZT201K4GDA	25	28	32	ISO M4
UHV-243A	60722ZT401K4GDA	34	28	32	ISO M4
UHV-7A	60729ZT701K4GDA	38	28	32	ISO M5
UHV-8A	60739ZT132K4GDA	48	28	32	ISO M5
UHV-9A	60750ZT202K4GDA	60	28	32	ISO M5
UHV-251A	60712ZT101K4HDA	20	31	35	ISO M4
UHV-252A	60718ZT201K4HDA	30	31	35	ISO M4
UHV-253A	60726ZT401K4HDA	34	31	35	ISO M4
UHV-10A	60729ZT561K4HDA	38	31	35	ISO M5
UHV-11A	60739ZT102K4HDA	48	31	35	ISO M5
UHV-12A	60750ZT172K4HDA	60	31	35	ISO M5

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UHV series

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLES

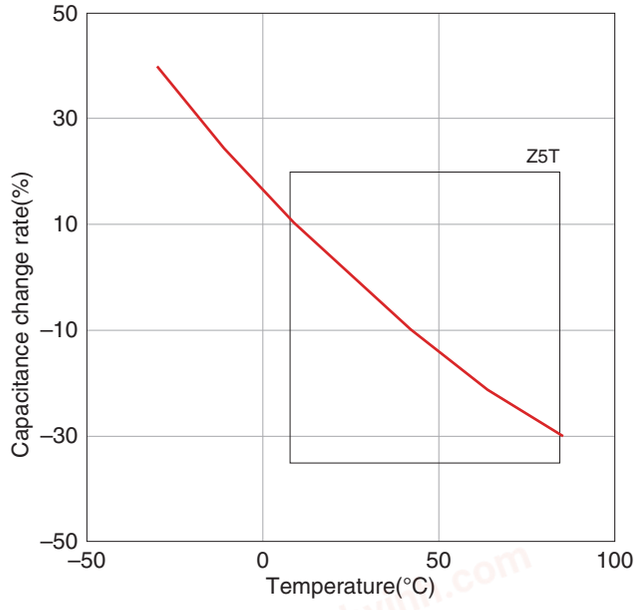
Class 2 (Temperature stable)

Temperaturecharacteristics: Z5T(+10 to +85°C, +22/–33%)

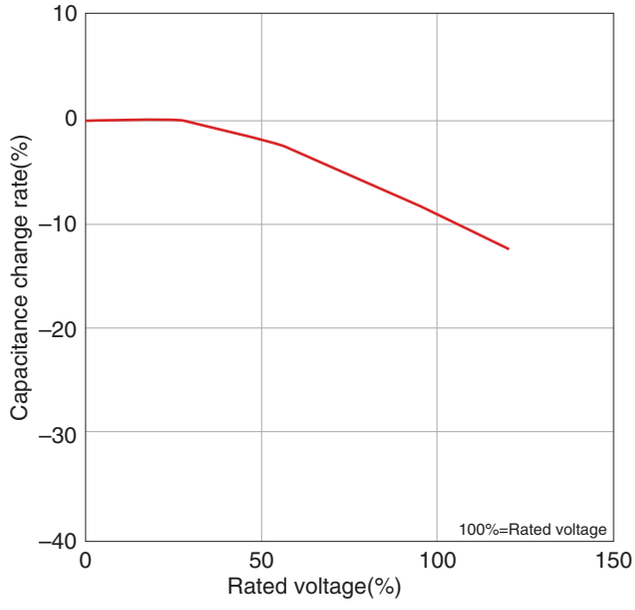
Part No.	Sub part No.	Rated voltage (kV)	Capacitance (pF)	Withstanding voltage [1min, in oil] (kV)	Dissipation factor (tanδ) (%) max.	Insulation resistance (MΩ) min.	AC corona starting voltage [3PC*] (kVAC) min.
UHV-221A	60711ZT201K4DDA	20	200±10%	30	0.2	100000	10
UHV-222A	60716ZT401K4DDA	20	400±10%	30	0.2	100000	10
UHV-223A	60721ZT701K4DDA	20	700±10%	30	0.2	100000	10
UHV-224A	60725ZT102K4DDA	20	1,000±10%	30	0.2	100000	10
UHV-1A	60729ZT142K4DDA	20	1,400±10%	30	0.2	100000	10
UHV-2A	60739ZT252K4DDA	20	2,500±10%	30	0.2	100000	10
UHV-3A	60750ZT402K4DDA	20	4,000±10%	30	0.2	100000	10
UHV-231A	60713ZT201K4FDA	30	200±10%	45	0.2	100000	15
UHV-232A	60719ZT401K4FDA	30	400±10%	45	0.2	100000	15
UHV-233A	60725ZT701K4FDA	30	700±10%	45	0.2	100000	15
UHV-4A	60729ZT941K4FDA	30	940±10%	45	0.2	100000	15
UHV-5A	60739ZT172K4FDA	30	1,700±10%	45	0.2	100000	15
UHV-6A	60750ZT272K4FDA	30	2,700±10%	45	0.2	100000	15
UHV-241A	60711ZT101K4GDA	40	100±10%	60	0.2	100000	20
UHV-242A	60716ZT201K4GDA	40	200±10%	60	0.2	100000	20
UHV-243A	60722ZT401K4GDA	40	400±10%	60	0.2	100000	20
UHV-7A	60729ZT701K4GDA	40	700±10%	60	0.2	100000	20
UHV-8A	60739ZT132K4GDA	40	1,300±10%	60	0.2	100000	20
UHV-9A	60750ZT202K4GDA	40	2,000±10%	60	0.2	100000	20
UHV-251A	60712ZT101K4HDA	50	100±10%	75	0.2	100000	25
UHV-252A	60718ZT201K4HDA	50	200±10%	75	0.2	100000	25
UHV-253A	60726ZT401K4HDA	50	400±10%	75	0.2	100000	25
UHV-10A	60729ZT561K4HDA	50	560±10%	75	0.2	100000	25
UHV-11A	60739ZT102K4HDA	50	1,000±10%	75	0.2	100000	25
UHV-12A	60750ZT172K4HDA	50	1,700±10%	75	0.2	100000	25

* PC：Pico coulomb.

CAPACITANCE VS. TEMPERATURE CHARACTERISTICS



CAPACITANCE VS. DC BIAS CHARACTERISTICS



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