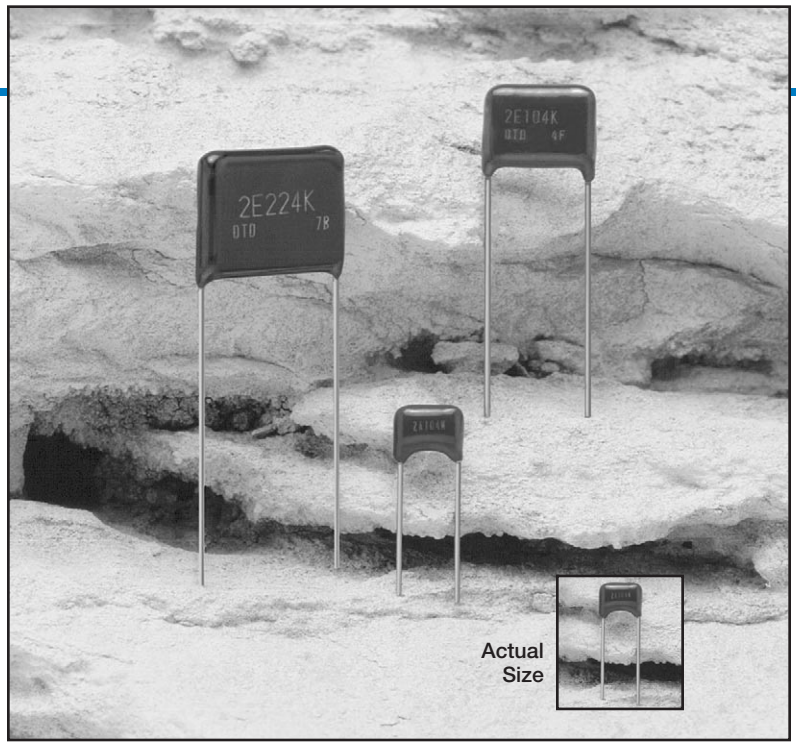
DTD Series

- Film
- Stacked Polyester
- Radial Lead
- General Purpose
- +105°C Maximum Temperature



The DTD series is the standard polyester film capacitor series from UCC/NCC. These capacitors are designed for use as noise limiters. The DTD capacitors are offered with a standard ±10% tolerance, and if the lead spacing is 5mm, the capacitors are available with ammo pack taping. If a smaller capacitor is required, please refer to the DTDZ series.

Summary of Specifications

- **Radial lead terminals.**
- **Capacitance range: 0.0015 to 15µF.**
- **Voltage range: 50 to 400VDC; 16 to 200VAC.**
- **Operating temperature range: −40°C to +105°C.**
- **Standard capacitance tolerance: ±10%**
- **Nominal case size (W×H×T): 7.5×5.0×4.0mm to 25.0×20.0×14.1mm.**
- **Rated lifetime: 1,000 hours at +105°C.**

DTD Specifications

<table>
<tr><th>Item</th><th>Characteristics</th></tr>
<tr><td>Operating Temperature Range</td><td>−40 to +85°C without voltage derating; −40 to +105°C with voltage derating.</td></tr>
<tr><td>Rated Voltage Range</td><td>50 to 400VDC; 16 to 200VAC</td></tr>
<tr><td>Capacitance Range</td><td>0.0015 to 15μF</td></tr>
<tr><td>Capacitance Tolerance</td><td>±10% (K) at +20°C, 1kHz</td></tr>
<tr><td>Dissipation Factor (Tan δ)</td><td>≤ 0.8% at +20°C, 1kHz</td></tr>
<tr><td>Withstand Voltage</td><td>Terminal-to-Terminal:
In accordance with JIS-C-5102 test conditions, there shall be no capacitor degradation after applying 150% of the DC rated voltage for 1 minute.

Terminal-to-Resin Coating:
In accordance with JIS-C-5102 test conditions, there shall be no capacitor degradation after applying 200% of the DC rated voltage for 5 seconds.</td></tr>
<tr><td>Insulation Resistance (IR)</td><td>Terminal-to-Terminal in accordance with JIS-C-5102 test conditions.
<table>
<tr><td colspan="2">DC Rated Voltage (V)</td><td>50, 63</td><td>100, 160</td><td>250, 400</td></tr>
<tr><td colspan="2">DC Applied Voltage (V)</td><td>50</td><td>100</td><td>250</td></tr>
<tr><td rowspan="2">Insulation Resistance</td><td>≤ 0.33μF</td><td colspan="3">≥ 10,000 MΩ</td></tr>
<tr><td>> 0.33μF</td><td colspan="3">≥ 3,300 ÷ C_R* = MΩ</td></tr>
</table></td></tr>
<tr><td>Low and High Temperature Characteristics</td><td>In accordance with JIS-C-5102 test conditions, the measurements for stability of electrical performance of capacitors at −40°C, +85°C and +105°C are shown in the following table.
<table>
<tr><td colspan="2">Temperature (°C)</td><td>−40 ± 3°C</td><td>+85 ± 2°C</td><td>+105 ± 2°C</td></tr>
<tr><td colspan="2">Capacitance Change</td><td>−7%, +0%</td><td>—</td><td>—</td></tr>
<tr><td rowspan="2">Insulation Resistance</td><td>≤ 0.33μF</td><td>—</td><td>≥ 1,000 MΩ</td><td>≥ 100 MΩ</td></tr>
<tr><td>> 0.33μF</td><td>—</td><td>≥ 330 ÷ C_R* = MΩ</td><td>≥ 33 ÷ C_R* = MΩ</td></tr>
</table></td></tr>
<tr><td>Humidity Load Life Test</td><td>In accordance with JIS-C-5102 test conditions, the following specifications shall be satisfied when the capacitors are cooled and kept at +20°C for approximately 16 hours after applying the DC rated voltage for 500+24−0 hours at +40 ± 2°C, 90-95% RH. After the initial load test, the withstand voltage (terminal-to-terminal) shall be tested by applying 130% of the DC rated voltage through a series resistor of 20-1,000 Ω/volt for 1 minute.

Appearance : no serious degradation
Capacitance change : ≤ ±7% of initial measured value
Insulation resistance : ≥ 3,000 MΩ for ≤ 0.33μF
: ≥ 1,000 ÷ C_R* = MΩ for > 0.33μF
Tan δ (DF) : ≤ 1.0%</td></tr>
<tr><td>Load Life Test</td><td>In accordance with JIS-C-5102 test conditions, the following specifications shall be satisfied when the capacitors are restored to +20°C after applying 125% of the DC rated voltage for 1,000+48,−0 hours at +85 ± 2°C or the initial DC rated voltage for 1,000+48,−0 hours at +105 ± 2°C. The voltage shall be applied through a series resistor of 20-1,000 Ω/volt.

Appearance : no serious degradation
Capacitance change : ≤ ±5% of initial measured value
Insulation resistance : ≥ 3,000 MΩ for ≤ 0.33μF
: ≥ 1,000 ÷ C_R* = MΩ for > 0.33μF
Tan δ (DF) : ≤ 1.0%</td></tr>
<tr><td>Solvent Resistance</td><td>No degradation when tested in accordance with JIS-C-5102 test conditions.</td></tr>
<tr><td>Standard</td><td>Satisfies JIS-C-5115 unless otherwise specified.</td></tr>
</table>

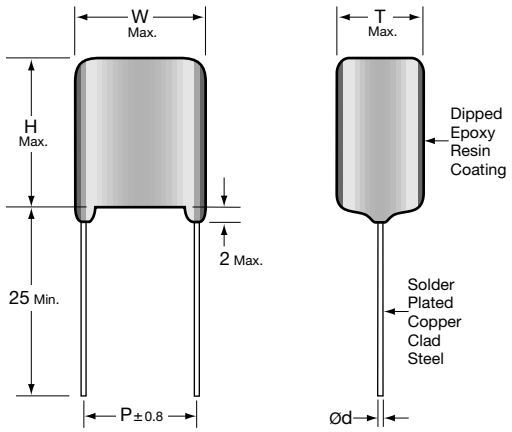
*C_R = Nominal Capacitance in μF

DTD Series

Diagram of Dimensions

Film/Radial Lead

Unit: mm



Refer to Standard Ratings Tables for W×H×T dimensions.

Lead Specifications

Lead Spacing		ød	
Code	P±0.8	H≤7mm	H>7mm
A	5	0.5	0.6
B	7.5	0.5	0.6
C	10	0.6	0.6
D	15	0.6	0.6
E	22.5	0.8	0.8

Part Numbering System for DTD Series

When ordering, always specify complete catalog number for DTD Series.

DTD A 1H 105 K

- K: Capacitance Tolerance: K = ±10%
- 105: Capacitance Value: Expressed in picofarads. The first two digits are significant figures, and the third digit indicates the number of zeros following these figures (e.g. 105 = 1,000,000pF = 1μF).
- 1H: Voltage Code: 1H = 50VDC; 1J = 63VDC; 2A = 100VDC; 2C = 160VDC; 2E = 250VDC; 2G = 400VDC
- A: Lead Spacing: A = 5mm; B = 7.5mm; C = 10mm; D = 15mm; E = 22.5mm
- DTD: Series Name: Indicates Basic Capacitor Design.

Standard Voltage Ratings - Film/Radial Lead

Rated Voltage (WVDC)	Capacitance (μF)	Catalog Part Number	P±0.8* Lead Spacing (mm)	W max.* Width (mm)	H max.* Height (mm)	T max.* Thickness (mm)
50 Volts	0.1	DTDA1H104K	5	7.5	5.0	4.4
	0.15	DTDA1H154K	5	7.5	7.0	4.7
	0.22	DTDA1H224K	5	7.5	10.0	4.6
	0.33	DTDA1H334K	5	7.5	10.0	5.6
	0.33	DTDB1H334K	7.5	10.5	7.0	4.5
	0.47	DTDA1H474K	5	7.5	10.0	6.9
	0.47	DTDB1H474K	7.5	10.5	10.0	4.3
	0.47	DTDC1H474K	10	12.5	7.0	4.5
	0.68	DTDA1H684K	5	7.5	12.5	7.5
	0.68	DTDB1H684K	7.5	10.5	10.0	5.2
	0.68	DTDC1H684K	10	12.5	10.0	4.3
	0.68	DTDD1H684K	15	17.5	10.0	4.0
	1.0	DTDA1H105K	5	7.5	12.5	9.7
	1.0	DTDB1H105K	7.5	10.5	10.0	6.4
	1.0	DTDC1H105K	10	12.5	10.0	5.2
	1.0	DTDD1H105K	15	17.5	10.0	4.6

*See diagram of dimensions.

DTD Series

Standard Voltage Ratings - Film/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	P ± 0.8* Lead Spacing (mm)	W max.* Width (mm)	H max.* Height (mm)	T max.* Thickness (mm)
50 Volts	1.5	DTDB1H155K	7.5	10.5	12.5	6.9
	1.5	DTDC1H155K	10	12.5	10.0	6.5
	1.5	DTDD1H155K	15	17.5	10.0	5.6
	2.2	DTDB1H225K	7.5	10.5	12.5	9.0
	2.2	DTDC1H225K	10	12.5	12.5	7.1
	2.2	DTDD1H225K	15	17.5	10.0	7.1
	3.3	DTDB1H335K	7.5	10.5	15.0	10.5
	3.3	DTDC1H335K	10	12.5	12.5	9.3
	3.3	DTDD1H335K	15	17.5	12.5	7.7
	4.7	DTDC1H475K	10	12.5	15.0	10.4
	4.7	DTDD1H475K	15	17.5	15.0	8.0
	4.7	DTDE1H475K	22.5	25.0	12.5	7.2
	5.6	DTDC1H565K	10	12.5	15.0	11.8
	5.6	DTDD1H565K	15	17.5	15.0	9.7
	5.6	DTDE1H565K	22.5	25.0	12.5	8.0
	6.8	DTDC1H685K	10	12.5	20.0	10.8
	6.8	DTDD1H685K	15	17.5	15.0	11.2
	6.8	DTDE1H685K	22.5	25.0	12.5	9.1
	10	DTDD1H106K	15	17.5	20.0	11.8
	10	DTDE1H106K	22.5	25.0	15.0	10.5
	15	DTDE1H156K	22.5	25.0	20.0	11.2
63 Volts	0.068	DTDA1J683K	5	7.5	5.0	4.1
	0.01	DTDA1J104K	5	7.5	5.0	4.6
	0.15	DTDA1J154K	5	7.5	7.0	5.2
	0.15	DTDB1J154K	7.5	10.5	7.0	4.0
	0.22	DTDA1J224K	5	7.5	10.0	5.1
	0.22	DTDB1J224K	7.5	10.5	7.0	4.6
	0.22	DTDC1J224K	10	12.5	7.0	4.1
	0.33	DTDA1J334K	5	7.5	10.0	6.3
	0.33	DTDB1J334K	7.5	10.5	10.0	4.6
	0.33	DTDC1J334K	10	12.5	7.0	4.7
	0.47	DTDA1J474K	5	7.5	10.0	7.8
	0.47	DTDB1J474K	7.5	10.5	10.0	5.5
	0.47	DTDC1J474K	10	12.5	10.0	4.6
	0.68	DTDA1J684K	5	7.5	12.5	8.4
	0.68	DTDB1J684K	7.5	10.5	10.0	6.7
	0.68	DTDC1J684K	10	12.5	10.0	5.5
	0.68	DTDD1J684K	15	17.5	10.0	4.2
	1.0	DTDB1J105K	7.5	10.5	12.5	7.4
	1.0	DTDC1J105K	10	12.5	10.0	6.8
	1.0	DTDD1J105K	15	17.5	10.0	5.0
	1.5	DTDB1J155K	7.5	10.5	12.5	9.7
	1.5	DTDC1J155K	10	12.5	12.5	7.5
	1.5	DTDD1J155K	15	17.5	10.0	6.2
	2.2	DTDB1J225K	7.5	10.5	15.0	10.1
	2.2	DTDC1J225K	10	12.5	12.5	9.8
	2.2	DTDD1J225K	15	17.5	10.0	7.9
	3.3	DTDC1J335K	10	12.5	15.0	11.5
	3.3	DTDD1J335K	15	17.5	12.5	8.7
	3.3	DTDE1J335K	22.5	25.0	12.5	6.4
	4.7	DTDC1J475K	10	12.5	20.0	11.8
	4.7	DTDD1J475K	15	17.5	15.0	9.7
	4.7	DTDE1J475K	22.5	25.0	12.5	8.0
	5.6	DTDD1J565K	15	17.5	15.0	11.1
	5.6	DTDE1J565K	22.5	25.0	12.5	9.0
	6.8	DTDD1J685K	15	17.5	20.0	10.1
	6.8	DTDE1J685K	22.5	25.0	15.0	9.0
	10	DTDE1J106K	22.5	25.0	20.0	9.5
	15	DTDE1J156K	22.5	25.0	20.0	12.9

***See diagram of dimensions.**

DTD Series

Standard Voltage Ratings - Film/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	P ± 0.8* Lead Spacing (mm)	W max.* Width (mm)	H max.* Height (mm)	T max.* Thickness (mm)
100 Volts	0.033	DTDA2A333K	5	7.5	5.0	4.0
	0.047	DTDA2A473K	5	7.5	5.0	4.3
	0.068	DTDA2A683K	5	7.5	7.0	4.5
	0.1	DTDA2A104K	5	7.5	7.0	5.5
	0.1	DTDB2A104K	7.5	10.5	7.0	4.2
	0.15	DTDA2A154K	5	7.5	10.0	5.4
	0.15	DTDB2A154K	7.5	10.5	7.0	5.0
	0.15	DTDC2A154K	10	12.5	7.0	4.3
	0.22	DTDA2A224K	5	7.5	10.0	6.7
	0.22	DTDB2A224K	7.5	10.5	10.0	4.5
	0.22	DTDC2A224K	10	12.5	10.0	4.2
	0.33	DTDA2A334K	5	7.5	12.5	7.4
	0.33	DTDB2A334K	7.5	10.5	10.0	6.1
	0.33	DTDC2A334K	10	12.5	10.0	5.0
	0.47	DTDA2A474K	5	7.5	12.5	9.5
	0.47	DTDB2A474K	7.5	10.5	10.0	7.5
	0.47	DTDC2A474K	10	12.5	10.0	6.0
	0.47	DTDD2A474K	15	17.5	10.0	4.5
	0.68	DTDB2A684K	7.5	10.5	12.5	8.0
	0.68	DTDC2A684K	10	12.5	10.0	7.5
	0.68	DTDD2A684K	15	17.5	10.0	5.4
	1.0	DTDB2A105K	7.5	10.5	15.0	9.1
	1.0	DTDC2A105K	10	12.5	12.5	8.2
	1.0	DTDD2A105K	15	17.5	10.0	6.7
	1.5	DTDC2A155K	10	12.5	15.0	9.5
	1.5	DTDD2A155K	15	17.5	12.5	7.4
	2.2	DTDC2A225K	10	12.5	20.0	9.9
	2.2	DTDD2A225K	15	17.5	12.5	9.6
	2.2	DTDE2A225K	22.5	25.0	12.5	6.9
	3.3	DTDD2A335K	15	17.5	15.0	11.1
	3.3	DTDE2A335K	22.5	25.0	12.5	9.1
	4.7	DTDD2A475K	15	17.5	20.0	11.5
	4.7	DTDE2A475K	22.5	25.0	15.0	10.1
	5.6	DTDE2A565K	22.5	25.0	20.0	9.6
	6.8	DTDE2A685K	22.5	25.0	20.0	10.6
160 Volts	0.022	DTDA2C223K	5	7.5	5.0	4.1
	0.033	DTDA2C333K	5	7.5	5.0	4.6
	0.047	DTDA2C473K	5	7.5	7.0	5.1
	0.047	DTDB2C473K	7.5	10.5	7.0	4.0
	0.068	DTDA2C683K	5	7.5	10.0	4.9
	0.068	DTDB2C683K	7.5	10.5	7.0	4.5
	0.068	DTDC2C683K	10	12.5	7.0	4.0
	0.1	DTDA2C104K	5	7.5	10.0	6.0
	0.1	DTDB2C104K	7.5	10.5	10.0	4.4
	0.1	DTDC2C104K	10	12.5	7.0	4.5
	0.15	DTDA2C154K	5	7.5	10.0	7.6
	0.15	DTDB2C154K	7.5	10.5	10.0	5.4
	0.15	DTDC2C154K	10	12.5	10.0	4.5
	0.22	DTDA2C224K	5	7.5	12.5	8.3
	0.22	DTDB2C224K	7.5	10.5	10.0	6.7
	0.22	DTDC2C224K	10	12.5	10.0	5.4
	0.22	DTDD2C224K	15	17.5	10.0	4.2
	0.33	DTDB2C334K	7.5	10.5	12.5	7.4
	0.33	DTDC2C334K	10	12.5	10.0	6.8
	0.33	DTDD2C334K	15	17.5	10.0	5.0
	0.47	DTDB2C474K	7.5	10.5	12.5	9.4
	0.47	DTDC2C474K	10	12.5	12.5	7.3
	0.47	DTDD2C474K	15	17.5	10.0	6.1

***See diagram of dimensions.**

DTD Series

Standard Voltage Ratings - Film/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	P ± 0.8* Lead Spacing (mm)	W max.* Width (mm)	H max.* Height (mm)	T max.* Thickness (mm)
160 Volts	0.68	DTDB2C684K	7.5	10.5	15.0	10.6
	0.68	DTDC2C684K	10	12.5	12.5	9.4
	0.68	DTDD2C684K	15	17.5	10.0	7.5
	1.0	DTDC2C105K	10	12.5	15.0	10.7
	1.0	DTDD2C105K	15	17.5	12.5	8.3
	1.0	DTDE2C105K	22.5	25.0	12.5	6.2
	1.5	DTDC2C155K	10	12.5	20.0	11.5
	1.5	DTDD2C155K	15	17.5	15.0	9.5
	1.5	DTDE2C155K	22.5	25.0	12.5	7.8
	2.2	DTDD2C225K	15	17.5	20.0	9.9
	2.2	DTDE2C225K	22.5	25.0	15.0	8.9
	3.3	DTDE2C335K	22.5	25.0	20.0	9.5
	4.7	DTDE2C475K	22.5	25.0	20.0	12.4
250 Volts	0.0015	DTDA2E152K	5	7.5	5.0	4.4
	0.0022	DTDA2E222K	5	7.5	5.0	4.4
	0.0033	DTDA2E332K	5	7.5	5.0	4.4
	0.0047	DTDA2E472K	5	7.5	5.0	4.4
	0.0047	DTDB2E472K	7.5	10.5	7.0	5.0
	0.0068	DTDA2E682K	5	7.5	5.0	4.4
	0.0068	DTDB2E682K	7.5	10.5	7.0	5.0
	0.01	DTDA2E103K	5	7.5	5.0	4.4
	0.01	DTDB2E103K	7.5	10.5	7.0	5.0
	0.015	DTDA2E153K	5	7.5	5.0	4.4
	0.015	DTDB2E153K	7.5	10.5	7.0	5.0
	0.022	DTDA2E223K	5	7.5	5.0	4.7
	0.022	DTDB2E223K	7.5	10.5	7.0	5.0
	0.033	DTDA2E333K	5	7.5	7.0	5.3
	0.033	DTDB2E333K	7.5	10.5	7.0	5.0
	0.047	DTDA2E473K	5	7.5	10.0	5.1
	0.047	DTDB2E473K	7.5	10.5	7.0	5.0
	0.047	DTDC2E473K	10	12.5	7.0	4.1
	0.068	DTDA2E683K	5	7.5	10.0	6.2
	0.068	DTDB2E683K	7.5	10.5	10.0	4.5
	0.068	DTDC2E683K	10	12.5	7.0	4.7
	0.1	DTDA2E104K	5	7.5	10.0	7.8
	0.1	DTDB2E104K	7.5	10.5	10.0	5.5
	0.1	DTDC2E104K	10	12.5	10.0	4.6
	0.15	DTDB2E154K	7.5	10.5	10.0	6.9
	0.15	DTDC2E154K	10	12.5	10.0	5.6
	0.15	DTDD2E154K	15	17.5	10.0	4.3
	0.22	DTDB2E224K	7.5	10.5	12.5	7.5
	0.22	DTDC2E224K	10	12.5	10.0	7.1
	0.22	DTDD2E224K	15	17.5	10.0	5.1
	0.33	DTDC2E334K	10	12.5	12.5	7.7
	0.33	DTDD2E334K	15	17.5	10.0	6.4
	0.47	DTDC2E474K	10	12.5	20.0	6.9
	0.47	DTDD2E474K	15	17.5	12.5	6.7
	0.68	DTDD2E684K	15	17.5	15.0	7.5
	0.68	DTDE2E684K	22.5	25.0	12.5	6.3
	0.82	DTDD2E824K	15	17.5	20.0	6.9
	0.82	DTDE2E824K	22.5	25.0	12.5	7.1
	0.9	DTDD2E904K	15	17.5	20.0	7.3
	0.9	DTDE2E904K	22.5	25.0	12.5	7.5
	1.0	DTDD2E105K	15	17.5	20.0	7.8
	1.0	DTDE2E105K	22.5	25.0	15.0	7.1
	1.5	DTDE2E155K	22.5	25.0	20.0	7.5

***See diagram of dimensions.**

DTD Series

Standard Voltage Ratings - Film/Radial Lead

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	P ± 0.8* Lead Spacing (mm)	W max.* Width (mm)	H max.* Height (mm)	T max.* Thickness (mm)
400 Volts	0.022	DTDB2G223K	7.5	10.5	10.0	5.1
	0.022	DTDC2G223K	10	12.5	10.0	4.4
	0.033	DTDB2G333K	7.5	10.5	10.0	6.3
	0.033	DTDC2G333K	10	12.5	10.0	5.3
	0.047	DTDB2G473K	7.5	10.5	12.5	6.6
	0.047	DTDC2G473K	10	12.5	10.0	6.5
	0.047	DTDD2G473K	15	17.5	10.0	4.6
	0.068	DTDB2G683K	7.5	10.5	12.5	8.5
	0.068	DTDC2G683K	10	12.5	12.5	6.8
	0.068	DTDD2G683K	15	17.5	10.0	5.5
	0.1	DTDB2G104K	7.5	10.5	15.0	9.6
	0.1	DTDC2G104K	10	12.5	12.5	8.8
	0.1	DTDD2G104K	15	17.5	10.0	6.9
	0.15	DTDC2G154K	10	12.5	15.0	10.1
	0.15	DTDD2G154K	15	17.5	12.5	7.5
	0.22	DTDC2G224K	10	12.5	20.0	10.6
	0.22	DTDD2G224K	15	17.5	12.5	9.8
	0.22	DTDE2G224K	22.5	25.0	12.5	6.9
	0.33	DTDC2G334K	10	12.5	20.0	14.6
	0.33	DTDD2G334K	15	17.5	15.0	11.3
	0.33	DTDE2G334K	22.5	25.0	12.5	9.0
	0.47	DTDD2G474K	15	17.5	20.0	11.6
	0.47	DTDE2G474K	22.5	25.0	15.0	10.0
	0.68	DTDD2G684K	15	17.5	20.0	15.6
	0.68	DTDE2G684K	22.5	25.0	20.0	10.4
	1.0	DTDE2G105K	22.5	25.0	20.0	14.1

***See diagram of dimensions.**

DTD Series Technical Data

1. Storage

The DTD series film capacitors must be stored between −40°C to +105°C.

2. Operating Temperature

Generally, the operating temperature is the ambient temperature; however, the operating temperature will be the surface temperature of the capacitor if self-heating occurs due to ripple current or a charge-discharge current, or if surface heating is caused by other components.

3. Rated AC Voltage

If the DTD series capacitors are used in an AC circuit, 50 to 60 Hz and within an operating temperature of −40°C to +85°C (including self-heating), the rated AC voltage must not exceed the values shown in *Table 1.*

Table 1. Rated AC Voltage.

Rated Voltage VDC	50	63	100	160	250	400
Rated Voltage VAC	16	25	44	63	125	200

4. AC and DC Voltage Derating

If the operating temperature of the DTD series capacitors exceeds +85°C, the applied voltage should be derated as specified in *Figure 1* for DC or *Figure 2* for AC voltage. This will prevent capacitor damage and reduce the failure rate.

Note: If the applied voltage contains both AC and DC, the peak voltage must not exceed the rated voltage.

Figure 1. DC Voltage Derating Rate.

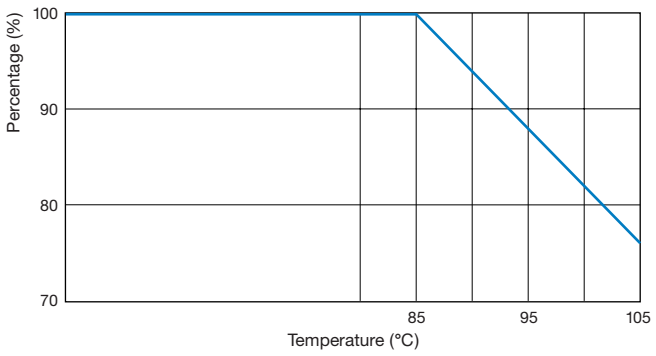
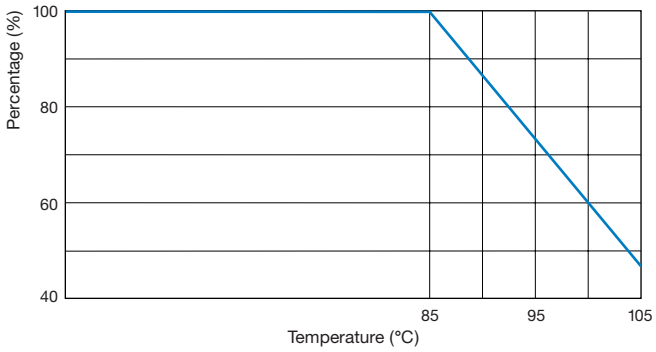


Figure 2. AC Voltage Derating Rate.



5. Voltage Derating for Pulse Waves

The voltage derating rate for pulse waves at a maximum operating temperature of +85°C is shown in *Figure 3*. A pulse wave and the formula for determining the sinusoidal AC voltage (Ep-p) are shown in *Figure 4.* Refer to *Section 7* for sine wave values.

Figure 3. Voltage Derating Rate for Pulse Waves at +85°C.

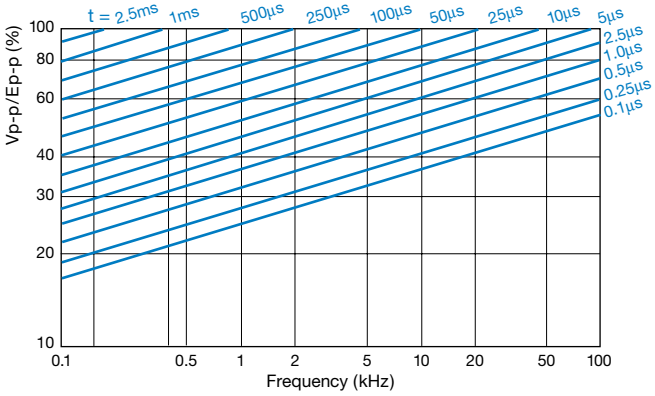
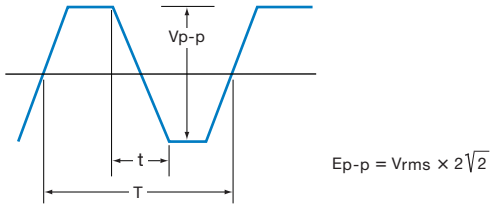


Figure 4. Pulse Wave at +85°C.



6. Maximum Pulse Voltage Moving Rate

For the DTD series film capacitors, the maximum pulse voltage moving rate (permissible dv/dt), not repeatable, is specified in *Table 2.* If there is a possibility of exceeding the spike surge indicated, please connect a resistor in series.

Table 2. Maximum Pulse Voltage Moving Rate.

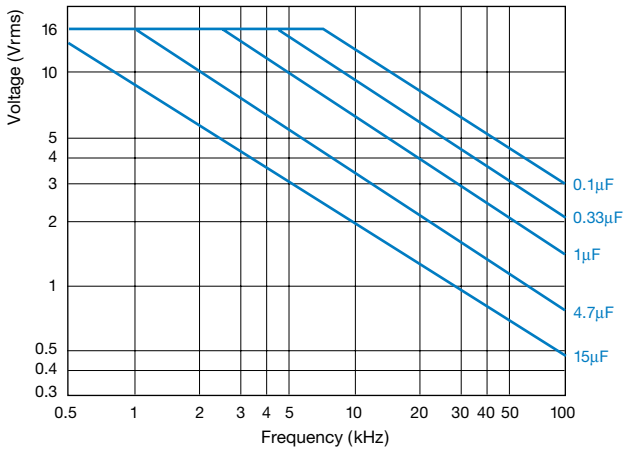
Lead Spacing		**Maximum Pulse Moving Rate (V/µs)**					
Code	**mm**	**50VDC**	**63VDC**	**100VDC**	**160VDC**	**250VDC**	**400VDC**
A	5	5	20	50	90	150	—
B	7.5	3	15	35	75	100	120
C	10	2	12	30	50	75	90
D	15	1.2	6.5	18	30	35	40
E	22.5	0.7	3.4	11	15	17	20

DTD Series Technical Data

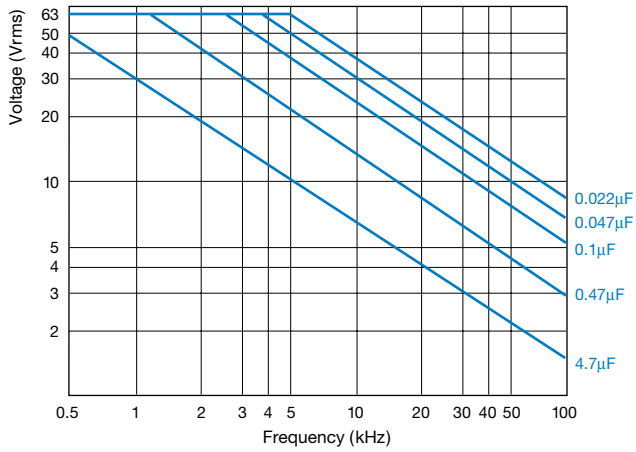
7. Maximum Allowable AC Voltage for Sine Waves

The following graphs indicate the maximum allowable AC voltage for sine waves for various capacitance ratings of the DTD series film capacitors at +85°C maximum.

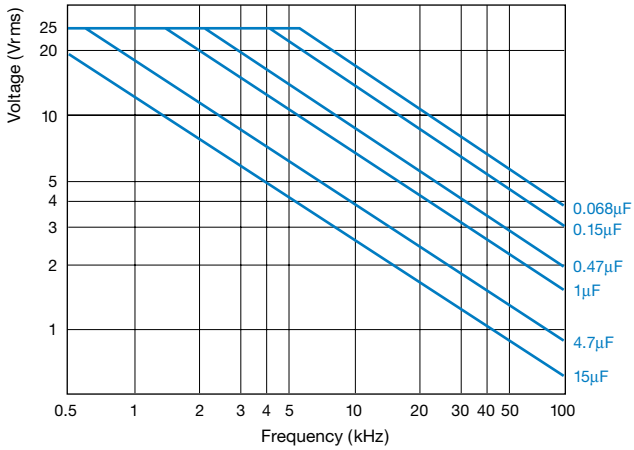
DTD 50VDC, 16VAC +85°C Max.



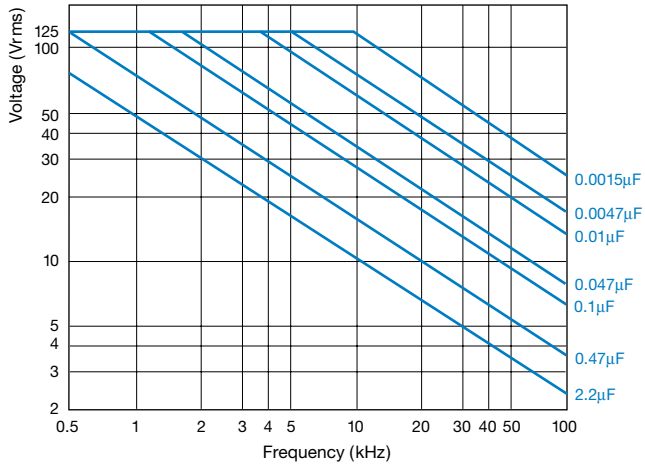
DTD 160VDC, 63VAC +85°C Max.



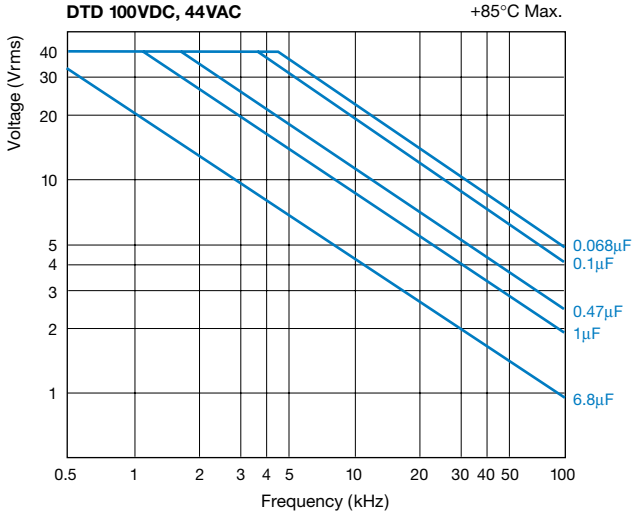
DTD 63VDC, 25VAC +85°C Max.



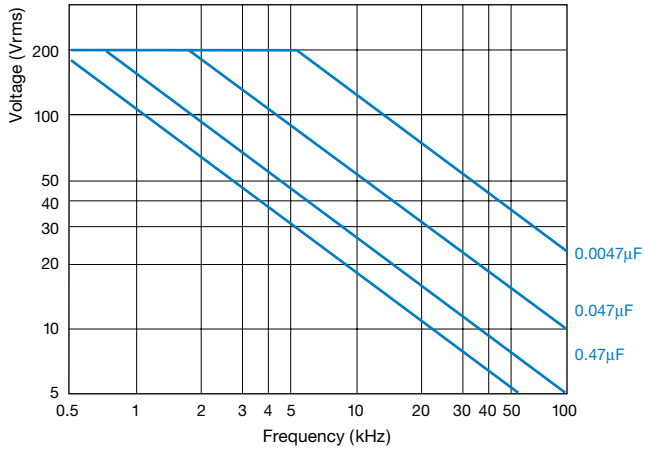
DTD 250VDC, 125VAC +85°C Max.



DTD 100VDC, 44VAC +85°C Max.



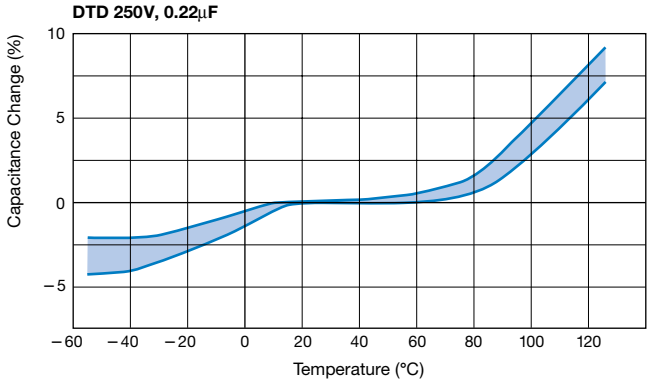
DTD 400VDC, 200VAC +85°C Max.



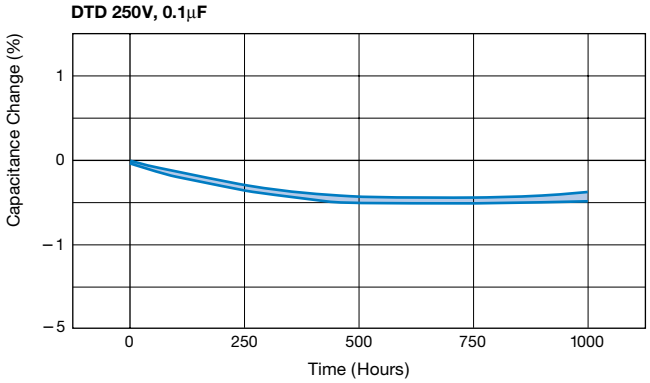
DTD Series Technical Data

8. Performance Characteristics

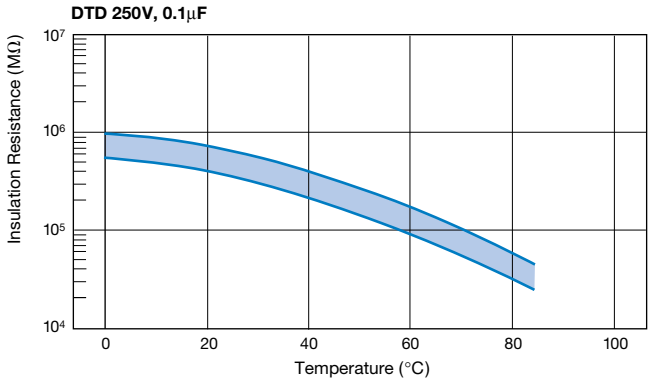
Capacitance – Temperature



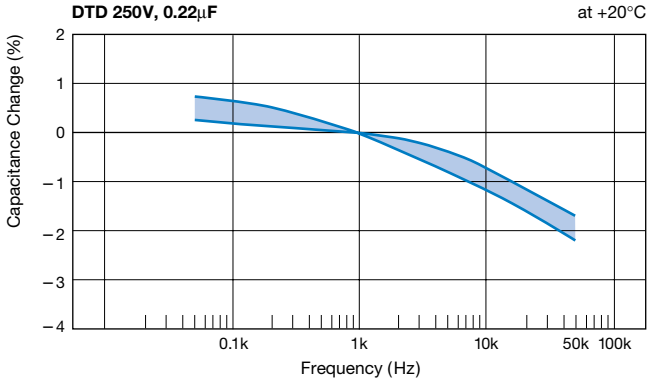
Capacitance – Load Life



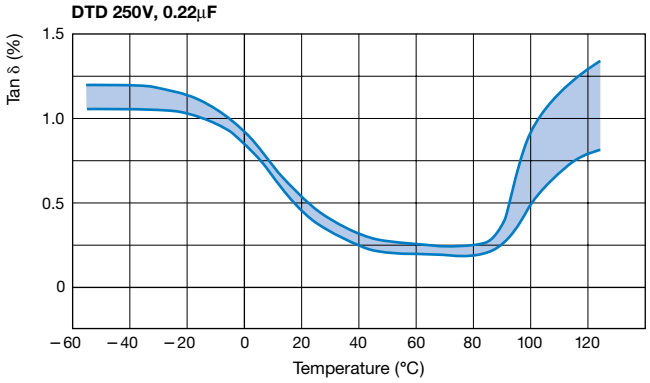
Insulation Resistance – Temperature



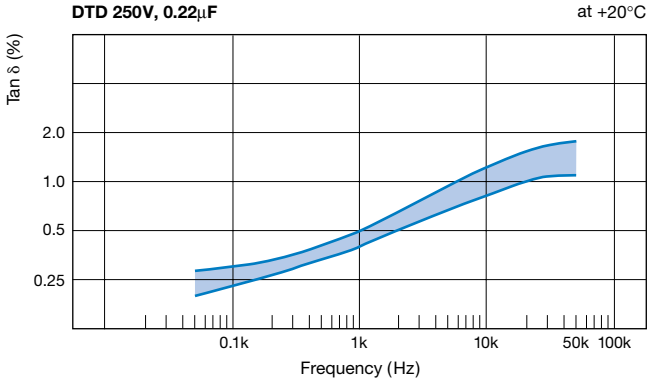
Capacitance – Frequency



Tan δ (DF) – Temperature



Tan δ (DF) – Frequency



Capacitance – Humidity Load Life