



WTD series

- Wide temperature
- Ultra Low ESR
- High Ripple Current
- RoHS compliant

- 125°C 2,000~4,000Hrs assured.
- Long life, Wide temperature
- For Ballaster, LED Lighting power
- RoHS compliant
- Halogen-free capacitors are also available.

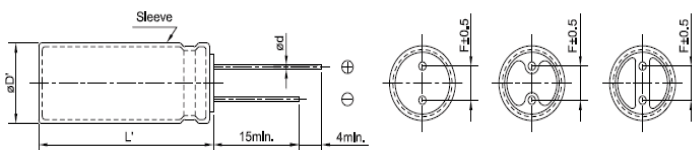


Specifications

Item	Characteristics																		
Rated Voltage Range	10 ~ 50 Vdc																		
Operating Temperature Range	-55 ~ +125°C																		
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)																		
Leakage Current	I=0.03CV(μA) or 4uA whichever is greater Where, I:Max. Leakage current(μA), C:Nominal capacitance(μF), V:Rated voltage(Vdc) (at 20°C, 1minutes)																		
Dissipation Factor(Tanδ)	<table border="1"> <tr> <td>Rated voltage (Vdc)</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Tanδ (max.)</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </table> (at 20°C, 120Hz)	Rated voltage (Vdc)	10	16	25	35	50	Tanδ (max.)	0.20	0.16	0.14	0.12	0.10						
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Temperature characteristics (Max,impedance ratio)	<table border="1"> <tr> <td>Rated voltage (Vdc)</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>6</td> <td>4</td> <td>4</td> <td>4</td> <td>5</td> </tr> </table> (at 120Hz)	Rated voltage (Vdc)	10	16	25	35	50	Z(-25°C)/Z(20°C)	3	2	2	2	3	Z(-40°C)/Z(20°C)	6	4	4	4	5
Rated voltage (Vdc)	10	16	25	35	50														
Z(-25°C)/Z(20°C)	3	2	2	2	3														
Z(-40°C)/Z(20°C)	6	4	4	4	5														
Load life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for specified life times 4,000hrs at 125°C (2,000hrs for 8Ø) Capacitance change ≤±20% of the initial value Tan δ ≤300% of the initial specified value Leakage current ≤The initial specified value																		
Shelf life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 125°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes at least 24 hours and not more than 48 hours before the measurements. Capacitance change ≤±20% of the initial value Tanδ ≤300% of the initial specified value Leakage current ≤200%The initial specified value																		

Dimensions

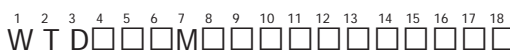
Unit(mm)



ØD	8	10	12.5	16
Ød	0.5	0.6	0.6	0.8
F	3.5	5.0	5.0	7.5
ØD'	ØD+0.5 max.			
L'	L+2.0 max			

- Printed black color letter on PET yellow sleeve

Code numbering system



- Taping, Cutting
- Terminal type
- Size (5X11: D11)
- Capacitance
- Capacitance tolerance(M: ±20%, K: ±10%, V : -10~20%)
- Rated voltage(ex. 160V→160)
- Series name

Ø8	F
Ø10	G
Ø12.5	X
Ø16	J



WTD series

Standard Ratings Note1) Ripple current = mArms/105°C,100kHz

WV (Vdc)	Cap (uF)	Size ØxL(mm)	Tan δ	Ripple ¹⁾	Code No
10	220	8 x 11.5	0.20	400	WTD010□221F12CS□□□
	330	10 x 12.5	0.20	720	WTD010□331G13CS□□□
	470	10 x 12.5	0.20	720	WTD010□471G13CS□□□
	1,000	10 x 20	0.20	1,100	WTD010□102G20CS□□□
	2,200	12.5 x 25	0.22	1,550	WTD010□222X25CS□□□
	3,300	16 x 25	0.24	2,000	WTD010□332J25CS□□□
	4,700	16 x 31.5	0.26	2,500	WTD010□472J32CS□□□
16	100	8 x 11.5	0.16	400	WTD016□101F12CS□□□
	220	10 x 12.5	0.16	720	WTD016□221G13CS□□□
	330	10 x 12.5	0.16	720	WTD016□331G13CS□□□
	470	10 x 16	0.16	940	WTD016□471G16CS□□□
	1,000	12.5 x 20	0.16	1,240	WTD016□102X20CS□□□
	2,200	16 x 25	0.18	2,000	WTD016□222J25CS□□□
	3,300	16 x 31.5	0.20	2,500	WTD016□332J32CS□□□
25	100	8 x 11.5	0.14	400	WTD025□101F12CS□□□
	220	10 x 12.5	0.14	720	WTD025□221G13CS□□□
	330	10 x 16	0.14	940	WTD025□331G16CS□□□
	470	10 x 20	0.14	1,100	WTD025□471G20CS□□□
	1,000	12.5 x 25	0.14	1,550	WTD025□102X25CS□□□
	2,200	16 x 31.5	0.16	2,500	WTD025□222J32CS□□□
35	100	8 x 11.5	0.12	400	WTD035□101F12CS□□□
	220	10 x 16	0.12	940	WTD035□221G16CS□□□
	330	10 x 20	0.12	1,100	WTD035□331G20CS□□□
	470	12.5 x 20	0.12	1,250	WTD035□471X20CS□□□
	1,000	16 x 25	0.12	2,000	WTD035□102J25CS□□□
50	10	8 x 11.5	0.10	230	WTD050□100F12CS□□□
	22	8 x 11.5	0.10	320	WTD050□220F12CS□□□
	33	8 x 11.5	0.10	340	WTD050□330F12CS□□□
	47	8 x 11.5	0.10	350	WTD050□470F12CS□□□
	100	10 x 12.5	0.10	580	WTD050□101G13CS□□□
	220	10 x 20	0.10	960	WTD050□221G20CS□□□
	330	12.5 x 20	0.10	1,150	WTD050□331X20CS□□□
	470	12.5 x 25	0.10	1,400	WTD050□471X25CS□□□
1,000	16 x 31.5	0.10	2,200	WTD050□102J32CS□□□	

Rated ripple current multipliers

Cap(uF) \ Freq.(Hz)	120	1k	10k	50k	100k
4.7 ~ 100	0.40	0.75	0.90	0.93	1.00
220 ~ 470	0.50	0.85	0.94	0.96	1.00
1000	0.60	0.87	0.95	0.97	1.00
2200 ~ 3300	0.75	0.90	0.95	0.97	1.00
~ 4700	0.85	0.95	0.98	0.99	1.00