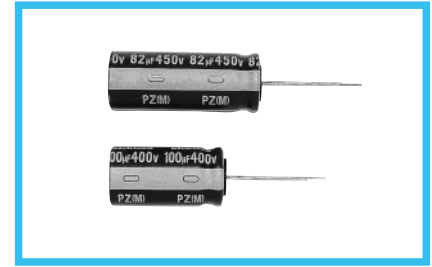
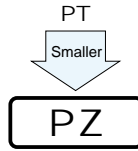


ALUMINUM ELECTROLYTIC CAPACITORS

PZ High Voltage, Smaller-sized
series



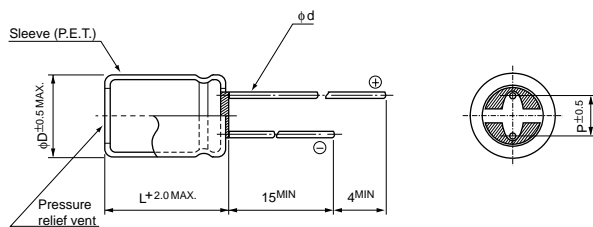
- High ripple current.
- Load life of 2000 hours at 105°C.
- Suited for ballast applications.
- Compliant to the RoHS directive (2002/95/EC).



Specifications

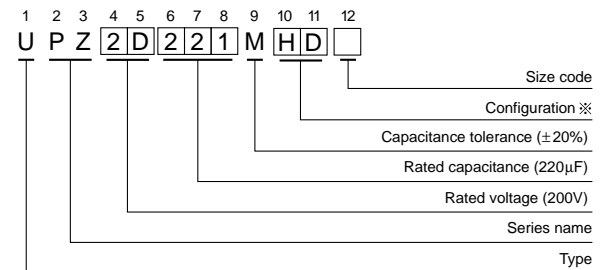
Item	Performance Characteristics										
Category Temperature Range	-25 to +105°C										
Rated Voltage Range	200 to 450V										
Rated Capacitance Range	18 to 470µF										
Capacitance Tolerance	±20% at 120Hz, 20°C										
Leakage Current	After 1 minute's application of rated voltage, leakage current is not more than 0.04CV+100 (µA).										
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz, Temperature : 20°C										
	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>200</td> <td>400</td> <td>420</td> <td>450</td> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.12</td> <td>0.15</td> <td>0.20</td> <td>0.20</td> </tr> </table>	Rated voltage (V)	200	400	420	450	tan δ (MAX.)	0.12	0.15	0.20	0.20
Rated voltage (V)	200	400	420	450							
tan δ (MAX.)	0.12	0.15	0.20	0.20							
Stability at Low Temperature	Measurement frequency : 120Hz										
	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>200</td> <td>400</td> <td>420</td> <td>450</td> </tr> <tr> <td>Impedance ratio ZT / Z20 (MAX.)</td> <td>Z-25°C / Z+20°C</td> <td>3</td> <td>8</td> <td>8</td> <td>8</td> </tr> </table>	Rated voltage (V)	200	400	420	450	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	3	8	8
Rated voltage (V)	200	400	420	450							
Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	3	8	8	8						
Endurance	<p>The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 2000 hours at 105°C, the peak voltage shall not exceed the rated voltage.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td>200% or less than the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Less than or equal to the initial specified value</td> </tr> </table>	Capacitance change	Within ±20% of the initial capacitance value	tan δ	200% or less than the initial specified value	Leakage current	Less than or equal to the initial specified value				
Capacitance change	Within ±20% of the initial capacitance value										
tan δ	200% or less than the initial specified value										
Leakage current	Less than or equal to the initial specified value										
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.										
Marking	Printed with white color letter on dark brown sleeve.										

Radial Lead Type



	(mm)			
φD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
φd	0.6	0.8	0.8	0.8

Type numbering system (Example : 200V 220µF)



※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
10	PD
12.5 to 18	HD

- Please refer to page 20 about the end seal configuration.

Please refer to page 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.

- Dimension table in next page.

■Dimensions

Cap.(μF)	V	200		400		420		450	
		Code	2D	2G	2G	W6	W6	2W	2W
18	180							10×31.5	180
22	220					10×31.5	200		
27	270			10×31.5	240				
33	330							12.5×31.5	280
39	390					12.5×31.5	310	12.5×35.5	320
47	470			12.5×31.5	370	12.5×35.5	360	12.5×40	380
56	560			12.5×35.5	420	12.5×40	430	16×31.5	440
68	680			12.5×40	480	16×31.5	510	16×35.5	490
82	820	10×31.5	400			16×35.5	570	16×40	550
								▲ 18×31.5	550
100	101			16×31.5	580	16×40	610	18×35.5	650
120	121			16×35.5	670	18×35.5	660	18×40	740
				▲ 18×31.5	670				
150	151	12.5×31.5	620	16×40	770	18×40	710		
				▲ 18×35.5	770				
180	181	12.5×35.5	700	18×40	880				
220	221	12.5×40	800						
270	271	16×31.5	870						
330	331	16×35.5	1010						
		▲ 18×31.5	1010						
390	391	16×40	1130						
		▲ 18×35.5	1120						
470	471	18×40	1270					Case size φD×L (mm)	Rated ripple

Rated ripple current (mA rms) at 105°C 120Hz

▲ : In this case, [6] will be put at 12th digit of type numbering system.

●Frequency coefficient of rated ripple current

V	60Hz	120Hz	500Hz	1kHz	10kHz or more
200	0.80	1.00	1.20	1.30	1.40
400 to 450	0.80	1.00	1.25	1.40	1.50