

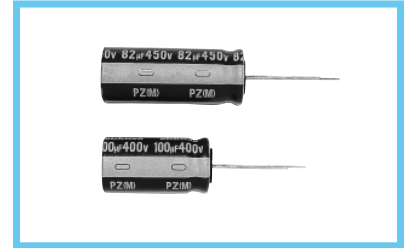
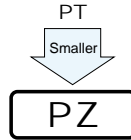
# ALUMINUM ELECTROLYTIC CAPACITORS



**PZ** High Voltage, Smaller-sized  
series



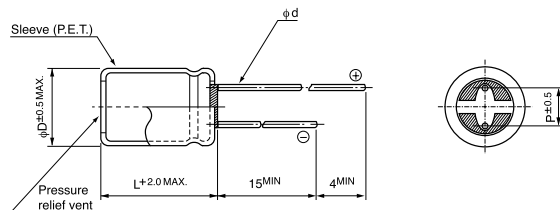
- High ripple current.
- Load life of 2000 hours at 105°C.
- Suited for ballast applications.
- Adapted to the RoHS directive (2002/95/EC).



## Specifications

Item	Performance Characteristics									
Category Temperature Range	-25 ~ +105°C									
Rated Voltage Range	200 ~ 450V									
Rated Capacitance Range	18 ~ 470μF									
Capacitance Tolerance	±20% at 120Hz, 20°C									
Leakage Current	After 1 minutes' application of rated voltage, leakage current is not more than 0.04CV+100 (μA).									
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
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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.)   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>After an application of D.C. bias voltage plus the rated ripple current for 2000 hours at 105°C the peak voltage shall not exceed the rated D.C. voltage, capacitors meet the characteristic requirements listed at right.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>tan δ</td> <td>200% or less of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance change	Within ±20% of initial value	tan δ	200% or less of initial specified value	Leakage current	Initial specified value or less			
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tan δ	200% or less of initial specified value									
Leakage current	Initial specified value or less									
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above.									
Marking	Printed with white color letter on dark brown sleeve.									

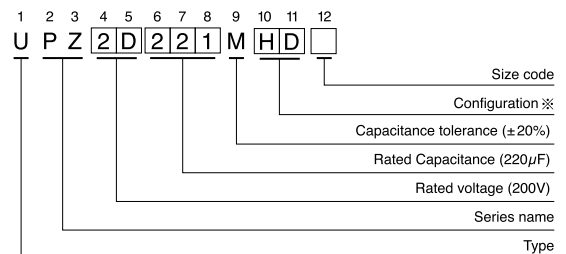
## Radial Lead Type



	(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

• Please refer to page 21 about the end seal configuration.

## Type numbering system (Example : 200V 220μF)



※ Configuration

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

Please refer to page 21, 22, 23 about the formed or taped product spec.  
Please refer to page 3 for the minimum order quantity.

- Dimension table in next page.

# ALUMINUM ELECTROLYTIC CAPACITORS

PZ series

## ■ 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
								▲18×31.5	610
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 (mArms) 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~
200	0.80	1.00	1.20	1.30	1.40
400 ~ 450	0.80	1.00	1.25	1.40	1.50