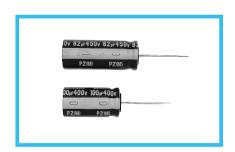
# **ALUMINUM ELECTROLYTIC CAPACITORS**

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).

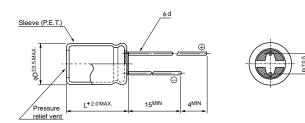




#### Specifications

Item	Performance Characteristics								
Category Temperature Range	-25 to +105°C								
Rated Voltage Range	200 to 450V								
Rated Capacitance Range	18 to 470µF	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).								
	Measurement frequency : 120Hz, Temperature : 20°C								
Tangent of loss angle (tan δ)	Rated voltage (V)	200	400	42	0	450			
	tan δ (MAX.)	0.12	0.15	0.2	0	0.20			
	Measurement frequency : 120Hz								
Stability at Low Temperature	Rated vol	tage (V)	200	400	420	450			
	Impedance ratio ZT / Z20	(MAX.) Z-25°C / Z+2	0°C 3	8	8	8			
Endurance	capacitors are restored to 20 C after D.C. plas plus rated ripple current is applied for 2000 hours at 105°C, the peak $\tan \delta$ 200% or less than the initial specified value						Within ±20% of the initial capacitance value 200% or less than the initial specified value 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.								

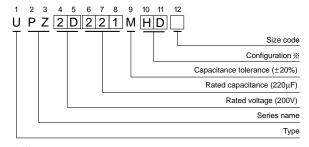
### ■ Radial Lead Type



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

 $\bullet$  Please refer to page 20 about the end seal configulation.

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



Configuration						
φD	Pb-free leadwire Pb-free PET sle					
10	PD					

HD

12.5 to 18

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

V		200		400		420		450	
Cap.(µF)	Code	2D		2G		W6		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
00	000	4004.5	400			4005.5	570	16×40	550
82	820	10×31.5	400			16×35.5		▲ 18 ×31.5	550
100	101			16×31.5	580	16×40	610	- 18×35.5	650
100	101		 	C.16 × 01	) 560 	▲ 18×31.5	610		
120	101			16×35.5	670	10 × 25 5	660	18×40	740
120	121			▲ 18×31.5	670	18×35.5	660		
150	151	12.5×31.5	620	16×40	770	18×40	740		
150	131	12.5 × 51.5	020	▲ 18×35.5	770	10 × 40	710		
180	181	12.5×35.5	700	18×40	880		l I		
220	221	12.5×40	800				 		
270	271	16×31.5	870				i !		
220	331 -	16×35.5	1010						
330	331	▲ 18×31.5	1010						
200	201	16×40	1130						
390	391	▲ 18×35.5	1120						
470	471	18×40	1270					Case size $\phi$ D×L (mm)	Rated ripp

Rated ripple current (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 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