

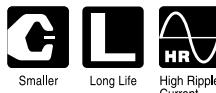
# ALUMINUM ELECTROLYTIC CAPACITORS

**nichicon**

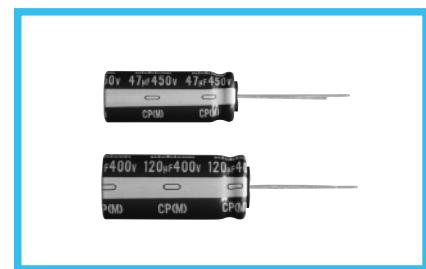
CP

High Voltage, Miniature sized, Long Life Assurance

- High ripple current.
- Load life of 10000 hours at 105°C.
- Suited for ballast applications.
- Compliant to the RoHS directive (2011/65/EU).



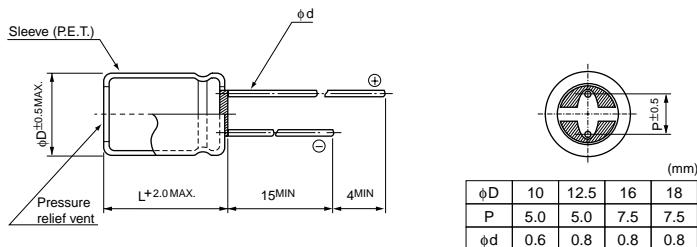
CS  
Smaller  
CP



## ■ Specifications

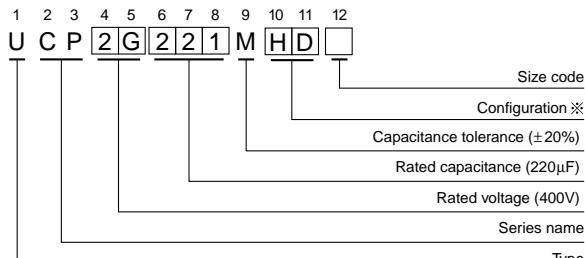
Item	Performance Characteristics									
Category Temperature Range	-25 to +105°C									
Rated Voltage Range	400 to 450V									
Rated Capacitance Range	27 to 220μF									
Capacitance Tolerance	±20% at 120Hz, 20°C									
Leakage Current	After 1 minutes' application of rated voltage, leakage current is not more than $I=0.04CV+100$ (μA).									
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C									
	Rated voltage (V)	400	420	450						
Stability at Low Temperature	tan δ (MAX.)	0.24	0.24	0.24						
	Measurement frequency : 120Hz									
	Rated voltage (V)		400	420						
Endurance	Impedance ratio (MAX.)		Z-25°C / Z+20°C	8						
			8	8						
			8	8						
Shelf Life	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 10000 hours at 105°C, the peak voltage shall not exceed the rated voltage.			<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									
Marking	Printed with white color letter on dark brown sleeve.									

### ■ Radial Lead Type



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

Type numbering system (Example : 400V 220μF)



## ※ Configuration

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

## ■ Dimensions

Cap	Code	V	400		420		450	
			2G		W6		2W	
<b>27</b>	270						$10 \times 31.5$	300
<b>33</b>	330	$10 \times 31.5$	330	$10 \times 31.5$	320			
<b>47</b>	470						$12.5 \times 31.5$	430
<b>56</b>	560	$12.5 \times 31.5$	470	$12.5 \times 31.5$	460	$12.5 \times 35.5$	490	
<b>68</b>	680	$12.5 \times 35.5$	540				$12.5 \times 40$	560
<b>82</b>	820	$12.5 \times 40$	620				$16 \times 31.5$	640
<b>100</b>	101	$16 \times 31.5$	710	$16 \times 31.5$	690	$16 \times 35.5$	730	
<b>120</b>	121	$16 \times 35.5$	800	$16 \times 35.5$	780	$16 \times 40$	820	
<b>150</b>	151	$16 \times 40$	920	$18 \times 35.5$	920	$18 \times 40$	970	
<b>180</b>	181	$\blacktriangle 18 \times 31.5$	890	$\blacktriangle 18 \times 31.5$	800	$\blacktriangle 18 \times 31.5$	800	
<b>220</b>	221	$18 \times 46$	1200				Case size $\phi D \times L$ (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.

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

Frequency	60Hz	120Hz	500Hz	1kHz	10kHz or more
Coefficient	0.80	1.00	1.25	1.40	1.50

CAT.8100C