ALUMINUM ELECTROLYTIC CAPACITORS



Wide Temperature Range, Permissible Abnormal Voltage (Radial Lead Type) series

- Improved safety feature for abnormally excessive voltage.
- High ripple current product.
- Adapted to the RoHS directive (2002/95/EC).



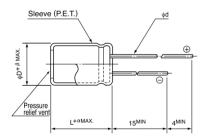


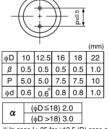
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Specifications

1		D. (0	•						
Item	Performance Characteristics										
Category Temperature Range	–40 ~ +105°C										
Rated Voltage Range	200 - 400V										
Rated Capacitance Range	10 ~ 220µF										
Capacitance Tolerance	±20% at 120Hz, 20°C										
Leakage Current	After 1 minute's application of rated voltage, leakage current is 0.04CV+100 (μA) or less.										
tan δ	Rated voltage (V) 200 400 tan δ (MAX.) 0.15 0.15										
Stability at Low Temperature	Rated voltage (V)		200	400	1	Measurement frequency : 120Hz					
	Z-25	°C / Z+20°C	3	8							
	Impedance ratio ZT / Z20 (MAX.) Z-40	°C / Z+20°C	6	10							
	After an application of D.C. bias voltage plus the rated ripple										
Faduration	current for 2000 hours at 105°C the peak	tan ò		cnange							
Endurance	exceed the rated D.C. voltage, capacitors				200% or less of initial specified value						
	characteristic requirements listed at right.			Leakage current		Initial specified value or less					
	After storing the capacitors under no load at 105°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4										
Shelf Life	clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above.										
Safety Performance	The pressure relief vent will operate in normal conditions, with no dangerous conditons such as flames, ignitions or dispersion of pieces of the capacitor and / or case.										
	voltore ()()	Test conditions									
	voltage (V)	Limited DC current				Test Voltage					
	200	4A				300VDC and 375VDC					
	400	2A				500VDC and 600VDC					
Marking	Printed with white color letter on dark brown sleeve.										

Radial Lead Type





• Please refer to page 21 about the end seal

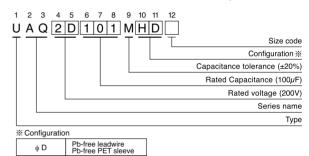
% In case L>25 for φ12.5 (D) case sizes, lead diameter φ0.8 (d) will be applied.

Type numbering system (Example : 200V 100µF)

PD

HD

RD



configulation.

Dimensions										
\sim	V(Code) 200 (2D) 4				400	400 (2G)				
ap.(µF)	Code	¢10	¢12.5	¢16	¢18	¢22	¢12.5	¢16	¢18	¢22
1	100						12.5×20			
	100						100			
22 220	220	10 × 20					12.5×31.5	016 × 20		L
	220	120					145	145		
33 330	220	10 × 25	012.5 × 20				12.5×40	016 × 25	<u>* 18 × 20</u>	L
	330	160	160				195	195	195	
47 470	470	10×31.5	o12.5 × 20					16 × 35.5	°18 × 25	
	470	195	195					280	280	[
56 560	500		12.5 × 25					16×35.5	018×31.5	* 22 × 20
	000		210					320	320	280
68 680	600		12.5 × 25					16×40	°18×35.5	* 22 × 25
	680		250					350	350	320
82 8	000		12.5 × 31.5	°16 × 20					18×40	
	820		285	285					420	
100 1	404		12.5×35.5	∘16×25	* 18×20					
	101		335	335	335					
150 151	454			16×31.5	°18 × 25	* 22 × 20				
	151			435	435	435				F
180	4.04			16×35.5	°18 × 31.5	* 22 × 25				
	181			495	495	495				F
220 221	004				18×35.5					Case size
	221				575					Rated ripple

Rated Ripple (mArms) at 105°C 120Hz

10

12.5~18

22

• Frequency coefficient of rated ripple current

Frequency	50, 60Hz	120Hz	300Hz	1kHz	10kHz ~
Coefficient	0.80	1.00	1.25	1.40	1.60

• : In case of low profile type, 6 will be put at 12th digit of type numbering system. * : For further low profile product, 3 will be put at 12th digit.

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

