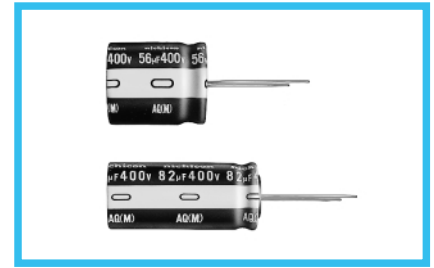
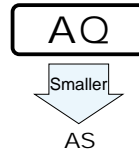


ALUMINUM ELECTROLYTIC CAPACITORS

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

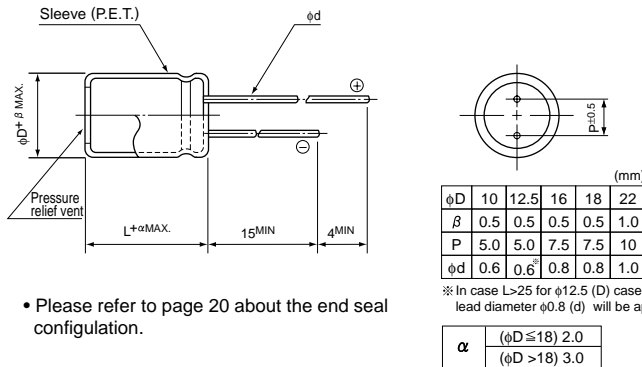
- Improved safety feature for abnormally excessive voltage.
- High ripple current product.
- Compliant to the RoHS directive (2002/95/EC).



Specifications

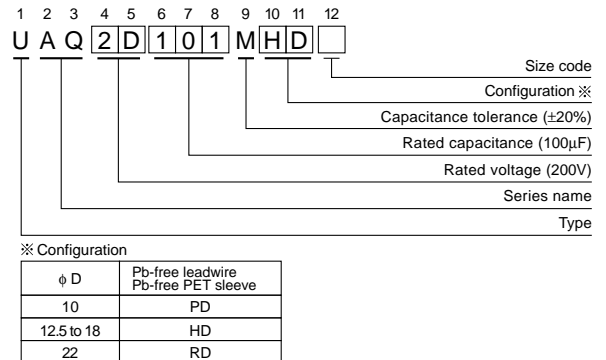
Item	Performance Characteristics				
Category Temperature Range	-40 to +105°C				
Rated Voltage Range	200 · 400V				
Rated Capacitance Range	10 to 220μF				
Capacitance Tolerance	±20% at 120Hz, 20°C				
Leakage Current	After 1 minute's application of rated voltage, leakage current is 0.04CV+100 (μA) or less.				
Tangent of loss angle (tan δ)	Rated voltage (V)	200	400	Measurement frequency:120Hz, Temperature:20°C	
	tan δ (MAX.)	0.15	0.15		
Stability at Low Temperature	Rated voltage (V)		200	400	Measurement frequency : 120Hz
	Impedance ratio ZT / Z20 (MAX.)		Z-25°C / Z+20°C 3	Z-40°C / Z+20°C 8	
Endurance	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.			Capacitance change	Within ±20% of the initial capacitance value
				tan δ	200% or less than 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.				
	The pressure relief vent will operate in normal conditions, with no dangerous conditions such as flames, ignitions or dispersion of pieces of the capacitor and / or case.				
Safety Performance	voltage (V)		Test conditions		
	200		Limited DC current	Test Voltage	
	400		4A	300VDC and 375VDC	
Marking	200		2A	500VDC and 600VDC	
	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 : 200V 100μF)



Dimensions

Cap.(μF)	V(Code)	Code	200 (2D)					400 (2G)					
			φ10	φ12.5	φ16	φ18	φ22	φ12.5	φ16	φ18	φ22		
10	100	100											
22	220	220	10 × 20 120					12.5 × 20 100					
33	330	330	10 × 25 160	12.5 × 20 160				12.5 × 31.5 145	16 × 20 145				
47	470	470	10 × 31.5 195	12.5 × 20 195				12.5 × 40 195	16 × 25 195	18 × 20 195			
56	560	560		12.5 × 25 210					16 × 35.5 320	18 × 25 280	22 × 20 280		
68	680	680		12.5 × 25 250					16 × 40 350	18 × 35.5 350	22 × 25 320		
82	820	820		12.5 × 31.5 285	16 × 20 285					18 × 40 420			
100	101	101		12.5 × 35.5 335	16 × 25 335	18 × 20 335							
150	151	151			16 × 31.5 435	18 × 25 435	22 × 20 435						
180	181	181			16 × 35.5 495	18 × 31.5 495	22 × 25 495						
220	221	221				18 × 35.5 575							Case size φD×L (mm) Rated ripple

Rated ripple current (mArms) at 105°C 120Hz

Frequency coefficient of rated ripple current

Frequency	50, 60Hz	120Hz	300Hz	1kHz	10kHz or more
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 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.