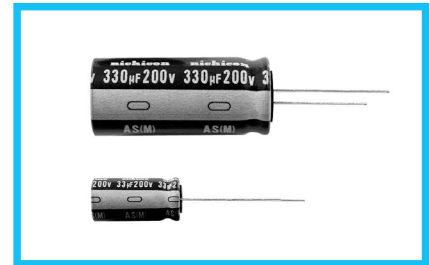
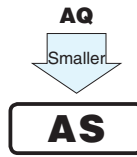


ALUMINUM ELECTROLYTIC CAPACITORS

AS

Wide Temperature Range, Miniature Type Permissible
Abnormal Voltage
series

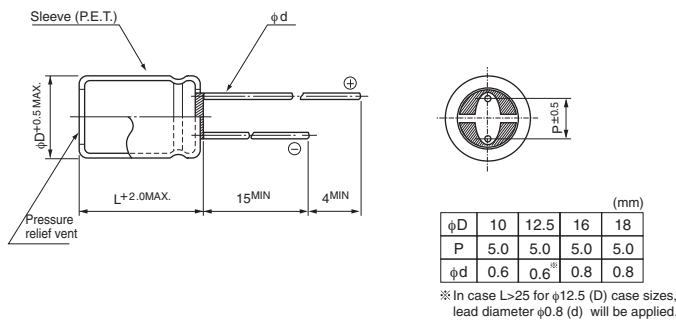


- Improved safety feature for abnormally excessive voltage.
- High ripple current product.
- Compliant to the RoHS directive (2011/65/EU).

Specifications

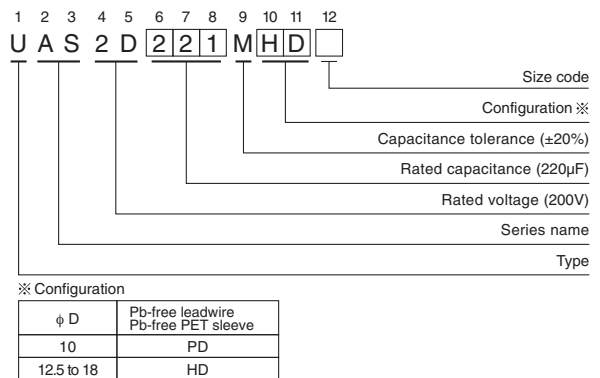
Item	Performance Characteristics			
Category Temperature Range	-40 to +105°C			
Rated Voltage Range	200V, 400V			
Rated Capacitance Range	4.7 to 330µF			
Capacitance Tolerance	±20% at 120Hz, 20°C			
Leakage Current	After 1 minute's application of rated voltage at 20°C, leakage current is 0.04CV+100 (µA) or less.			
Tangent of loss angle (tan δ)	Rated voltage (V)	200	400	
	tan δ (MAX.)	0.15	0.15	
Measurement frequency: 120Hz at 20°C				
Stability at Low Temperature	Rated voltage (V)		200	400
	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	3	8
Z-40°C / Z+20°C		6	10	
Measurement frequency : 120Hz				
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 leaving capacitors under no load at 105°C for 1000 hours 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		
		Limited DC current	Test Voltage	
		200	300VDC and 375VDC	
400	500VDC and 600VDC			
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 : 200V 220µF)



Dimensions

Cap. (µF)	Code	200 (2D)				400 (2G)			
		φ10	φ12.5	φ16	φ18	φ10	φ12.5	φ16	φ18
4.7	4R7					10 × 9	60		
22	220						12.5 × 20	165	
27	270						12.5 × 25	200	
33	330	10 × 20	160					16 × 20	225
39	390							16 × 25	255
47	470	10 × 25	195	▲12.5 × 20	195			16 × 25	290
56	560			12.5 × 20	210			▲18 × 20	280
68	680			12.5 × 25	320			▲18 × 25	320
82	820			12.5 × 25	360			▲18 × 25	360
100	101			12.5 × 31.5	430	▲16 × 20	430	16 × 40	435
120	121							18 × 31.5	430
150	151					16 × 25	460	▲18 × 20	460
180	181					16 × 31.5	600	▲18 × 25	600
220	221							18 × 31.5	710
270	271							18 × 35.5	890
330	331							18 × 40	910
									Case size φD×L (mm)
									Rated ripple

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

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

- ▲ : In case of low profile type, [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.

CAT.8100D