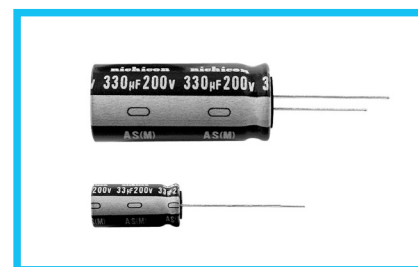


nichicon

Wide Temperature Range, Miniature Type Permissible
Abnormal Voltage
series



- AQ**
- Smaller
- AS**



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	Measurement frequency:120Hz at 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	8	
		Z-40°C / Z+20°C	6	10	
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
				Leakage current	Less than or equal to 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.				
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.				
	voltage (V)		Test conditions		
			Limited DC current	Test Voltage	
	200		4A (5A : 330µF)	300VDC and 375VDC	
Marking	400		2A (4A : 100µF or more)	500VDC and 600VDC	
	Printed with white color letter on dark brown sleeve				

Technical drawing of a sleeve (P.E.T.) showing dimensions and a table of values.

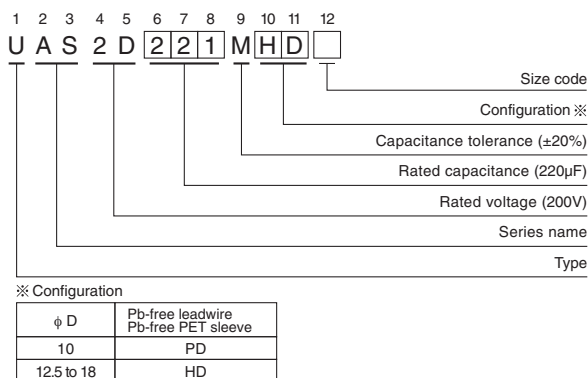
Dimensions and labels:

- Sleeve (P.E.T.)
- $\phi D \pm 0.5 \text{ MAX.}$
- $L \pm 2.0 \text{ MAX.}$
- ϕd
- 15 MIN.
- 4 MIN.
- Pressure relief vent
- $P \pm 0.5$

	(mm)			
ϕD	10	12.5	16	18
P	5.0	5.0	5.0	5.0
ϕd	0.6	0.6 ^(*)	0.8	0.8

※ In case $L > 25$ for $\phi 12.5$ (D) case sizes, lead diameter $\phi 0.8$ (d) will be applied.

- Type numbering system (Example : 200V 220 μ F)



Cap.(μF) Code		V		200 (2D)								400 (2G)								
		φD		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	▲18 × 20	255
47	470	10 × 25	195	▲12.5 × 20	195												16 × 25	290	▲18 × 20	280
56	560			12.5 × 20	210												16 × 31.5	340	▲18 × 25	320
68	680			12.5 × 25	320												16 × 35.5	385	▲18 × 25	360
82	820			12.5 × 25	360												16 × 40	435	▲18 × 31.5	430
100	101			12.5 × 31.5	430	▲16 × 20	430												18 × 35.5	490
120	121																		18 × 40	540
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

- Rated ripple current (mA rms) at 105°C 120Hz

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.
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