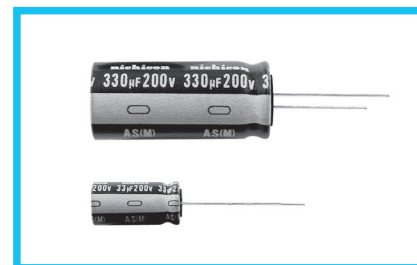


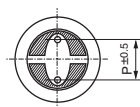
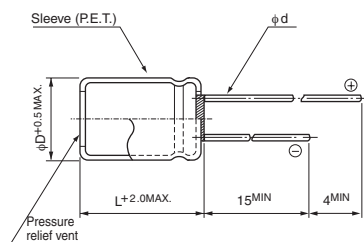
UASWide Temperature Range, Miniature Type Permissible
Abnormal Voltage

Smaller

- 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)	<table><tr><td>Rated voltage (V)</td><td>200</td><td>400</td></tr><tr><td>tan δ (MAX.)</td><td>0.15</td><td>0.15</td></tr></table>	Rated voltage (V)	200	400	tan δ (MAX.)	0.15	0.15	Measurement frequency:120Hz at 20°C							
Rated voltage (V)	200	400													
tan δ (MAX.)	0.15	0.15													
Stability at Low Temperature	<table><tr><td colspan="2">Rated voltage (V)</td><td>200</td><td>400</td></tr><tr><td rowspan="2">Impedance ratio ZT / Z20 (MAX.)</td><td>Z-25°C / Z+20°C</td><td>3</td><td>8</td></tr><tr><td>Z-40°C / Z+20°C</td><td>6</td><td>10</td></tr></table>	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		
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												
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.		<table><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														
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											
	400		2A (4A : 100μF or more)	500VDC and 600VDC											
Marking	Printed with white color letter on dark brown sleeve.														

Radial Lead Type

	10	12.5	16	18
φD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
φd	0.6	0.6 ^⑧	0.8	0.8

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

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

Type numbering system (Example : 200V 220µF)

1	2	3	4	5	6	7	8	9	10	11	12
U	A	S	2	D	2	2	1	M	H	D	
Size code											
Configuration ※											
Capacitance tolerance (±20%)											
Rated capacitance (220µF)											
Rated voltage (200V)											
Series name											
Type											

※ Configuration

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

Dimensions

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									Case size φD×L (mm)	Rated ripple
330	331									18 × 40	910										