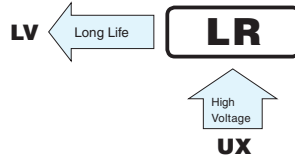


# ALUMINUM ELECTROLYTIC CAPACITORS

**LR** series Chip Type, High Voltage.



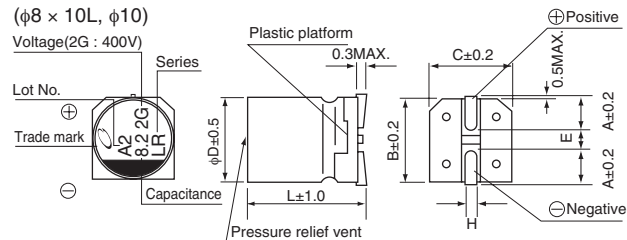
- Chip Type, high Voltage.
- Applicable to automatic mounting machine using carrier tape.
- Adapted to the RoHS directive (2011/65/EU).



## Specifications

Item	Performance Characteristics	
Category Temperature Range	-40 to +105°C	
Rated Voltage Range	160 to 500V	
Rated Capacitance Range	2.7 to 39μF	
Capacitance Tolerance	±20% at 120Hz, 20°C	
Leakage Current	After 1 minute's application of rated voltage, leakage current is not more than 0.04CV +100(μA).	
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C	
	Rated voltage (V)	160 200 250 400 450 500
Stability at Low Temperature	Measurement frequency: 120Hz	
	Rated voltage (V)	160 200 250 400 450 500
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 3000 hours at 105°C.	
	Capacitance change	tan δ
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.	
	Capacitance change	tan δ
Resistance to soldering heat	The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the characteristic requirements listed at right when they are removed from the plate.	
	Capacitance change	tan δ
Marking	Black print on the case top.	

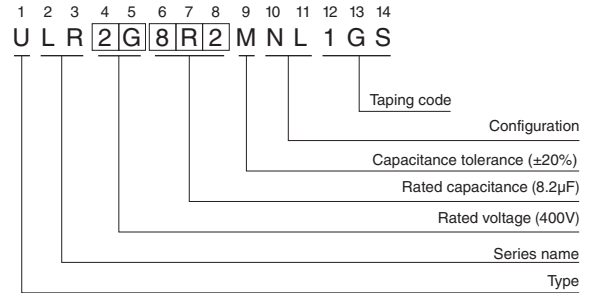
## Chip Type



φD×L	8×10	10×10	10×13.5
A	2.9	3.2	3.2
B	8.3	10.3	10.3
C	8.3	10.3	10.3
E	3.1	4.5	4.5
L	10	10	13.5
H	0.8 to 1.1	0.8 to 1.1	0.8 to 1.1

Voltage	V	160	200	250	400	450	500
Code	2C	2D	2E	2G	2W	2H	

## Type numbering system (Example : 400V 8.2μF)



## Dimensions

Cap.(μF)	Code	V 160		200		250		400		450		500	
		2C	2D	2E	2G	2W	2H						
2.7	2R7											8 × 10	20
3.9	3R9											10 × 10	35
4.7	4R7							8 × 10	35				
5.6	5R6												
6.8	6R8												
8.2	8R2												
10	100					8 × 10	35						
12	120												
15	150	8 × 10	50	8 × 10	50			10 × 13.5	55				
22	220												
27	270	10 × 10	65	10 × 10	65	10 × 13.5	55						
33	330												
39	390	10 × 13.5	70										

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

## Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Coefficient	0.80	1.00	1.25	1.40	1.60

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please refer to page 3 for the minimum order quantity.