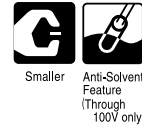
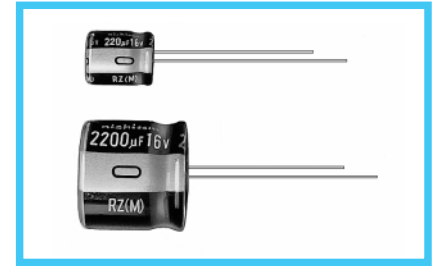
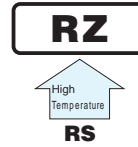


## RZ series Compact & Low-Profile Sized, Wide Temperature Range



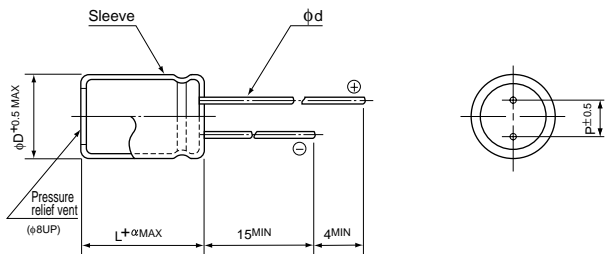
Very small case sizes same as RS series, but operating over wide temperature range of  $-55 (-40) \sim +105^{\circ}\text{C}$ .



### Specifications

Item	Performance Characteristics	
Category Temperature Range	$-55 \sim +105^{\circ}\text{C}$ (6.3 ~ 100V) , $-40 \sim +105^{\circ}\text{C}$ (160 ~ 400V)	
Rated Voltage Range	6.3 ~ 400V	
Rated Capacitance Range	0.1 ~ 10000 $\mu\text{F}$	
Capacitance Tolerance	$\pm 20\%$ at 120Hz, 20 $^{\circ}\text{C}$	
Leakage Current	Rated voltage (V)	6.3 ~ 100
		160 ~ 400
tan $\delta$	For capacitance of more than 1000 $\mu\text{F}$ , add 0.02 for every increase of 1000 $\mu\text{F}$ . Measurement frequency : 120Hz, Temperature : 20 $^{\circ}\text{C}$	
	Rated voltage (V)	6.3 10 16 25 35 50 63 100 160 200 250 400
Stability at Low Temperature	Measurement frequency : 120Hz	
	Rated voltage (V)	6.3 10 16 25 35 50 63 100 160 200 250 400
Endurance	After 1000 hours' application of rated voltage at 105 $^{\circ}\text{C}$ , capacitors meet the characteristic requirements listed at right.	Capacitance change
		tan $\delta$
Shelf Life	After leaving capacitors under no load at 105 $^{\circ}\text{C}$ for 1000 hours, they meet the specified value for endurance characteristics listed above.	Leakage current
Marking	Printed with white color letter on black sleeve.	

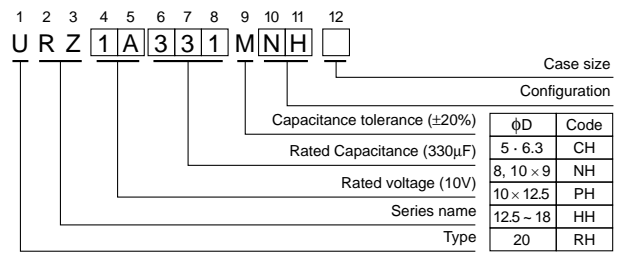
### Radial Lead Type



$\alpha$	$(\phi D < 20)$ 1.5
	$(\phi D \geq 20)$ 2.0

$\phi D$	5	6.3	8	10	12.5	16	18	20
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0
$\phi d$	0.5	0.5	0.6	0.6	0.6	0.8	0.8	1.0

### Type numbering system (Example : 10V 330 $\mu\text{F}$ )



The PET sleeve product is also available upon request. In this case, T will be put at 11th digit of type numbering system.

Please refer to page 18, 19, 20 about the formed or taped product spec. Please refer to page 3 for the minimum order quantity.

Dimension table in next page.



## ■ Dimensions

D × L (mm)

V		6.3		10		16		25		35		50	
Cap.(μF)	Code	0J		1A		1C		1E		1V		1H	
0.1	0R1											5 × 9	1.1
0.22	R22											5 × 9	2.3
0.33	R33											5 × 9	3.5
0.47	R47											5 × 9	5
1	010											5 × 9	12
2.2	2R2											5 × 9	18
3.3	3R3											5 × 9	25
4.7	4R7							5 × 9	20	5 × 9	25	5 × 9	30
10	100					5 × 9	30	5 × 9	35	5 × 9	40	5 × 9	46
22	220	5 × 9	25	5 × 9	40	5 × 9	50	5 × 9	55	5 × 9	60	5 × 9	65
33	330	5 × 9	40	5 × 9	55	5 × 9	60	5 × 9	70	5 × 9	75	6.3 × 9	85
47	470	5 × 9	55	5 × 9	65	5 × 9	70	5 × 9	80	6.3 × 9	95	6.3 × 9	100
100	101	5 × 9	90	5 × 9	95	6.3 × 9	115	6.3 × 9	130	8 × 9	155	10 × 9	170
220	221	6.3 × 9	145	6.3 × 9	155	8 × 9	205	10 × 9	220	10 × 9	235	10 × 12.5	290
330	331	6.3 × 9	180	8 × 9	210	10 × 9	240	10 × 9	270	10 × 12.5	340	12.5 × 12.5	370
470	471	8 × 9	235	8 × 9	275	10 × 9	290	10 × 12.5	370	12.5 × 12.5	420	16 × 15	540
1000	102	10 × 9	370	10 × 12.5	450	12.5 × 12.5	520	12.5 × 15	590	16 × 15	720	18 × 20	830
2200	222	12.5 × 15	635	12.5 × 15	690	16 × 15	830	18 × 15	970	18 × 20	1110	20 × 25	1250
3300	332	16 × 15	860	16 × 15	940	18 × 15	1050	18 × 20	1220	20 × 25	1430		
4700	472	16 × 15	1010	18 × 15	1120	18 × 20	1260	18 × 25	1470				
6800	682	18 × 15	1200	18 × 20	1330	18 × 25	1560						
10000	103	18 × 20	1450	18 × 25	1700							Case size	Rated ripple

V		63		100		160		200		250		400	
Cap.(μF)	Code	1J		2A		2C		2D		2E		2G	
0.1	0R1			5 × 9	1.2								
0.22	R22			5 × 9	3								
0.33	R33			5 × 9	4.5								
0.47	R47			5 × 9	6.5								
1	010			5 × 9	12								
2.2	2R2			5 × 9	17								
3.3	3R3			5 × 9	25								
4.7	4R7			6.3 × 9	32								
10	100	5 × 9	42	6.3 × 9	50							16 × 15	100
22	220	6.3 × 9	71	8 × 9	93					16 × 15	200	● 18 × 15	200
33	330	8 × 9	100	10 × 9	130			16 × 15	250	● 18 × 15	250	18 × 20	250
47	470	8 × 9	120	10 × 12.5	165	16 × 15	300	● 18 × 15	300	△ 18 × 20	300	★ 18 × 25	300
68	680					● 18 × 15	350	△ 18 × 20	350	18 × 20	350	20 × 25	350
100	101	10 × 9	215	12.5 × 15	265	△ 18 × 20	420	★ 18 × 25	420	18 × 25	420		
150	151					★ 18 × 25	510	18 × 25	510				
220	221	12.5 × 12.5	335	16 × 15	440	20 × 25	550						
330	331	12.5 × 15	510	18 × 15	540								
470	471	16 × 15	640									Case size	Rated ripple

Rated Ripple (mA rms) at 105°C 120Hz

Size 16 × 20 is available for capacitors marked " ● "  
 Size 20 × 15 is available for capacitors marked " △ "  
 Size 20 × 20 is available for capacitors marked " ★ "

## ■ Frequency coefficient of rated ripple current

V	Cap.(μF)	Frequency				
		50Hz	120Hz	300Hz	1 kHz	10kHz ~
6.3 ~ 100	~ 47	0.75	1.00	1.35	1.57	2.00
	100 ~ 470	0.80	1.00	1.23	1.34	1.50
	1000 ~	0.85	1.00	1.10	1.13	1.15
160 ~ 400	10 ~ 220	0.80	1.00	1.25	1.40	1.60

In this case, [ ] will be put at 12th digit of type numbering system.