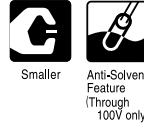
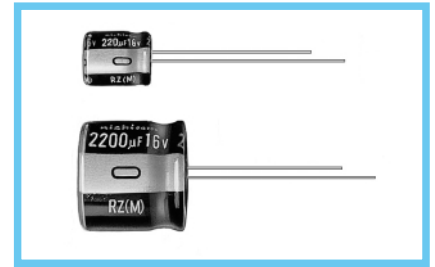
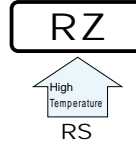


## RZ series Compact & Low-Profile Sized, Wide Temperature Range



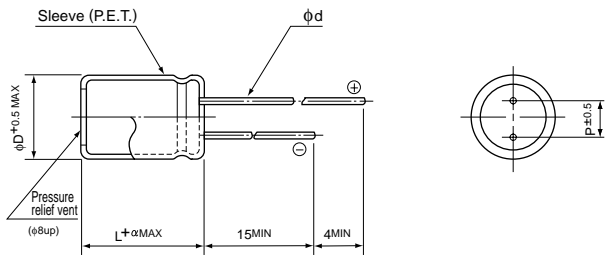
- Very small case sizes same as RS series, but operating over wide temperature range of  $-55 (-40) \sim +105^{\circ}\text{C}$ .
- Adapted to the RoHS directive (2002/95/EC).



### 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	
	Impedance ratio ZT / Z20 (MAX.)	Z-25 $^{\circ}\text{C}$ / Z+20 $^{\circ}\text{C}$ 5 4 3 2 2 2 2 2 3 3 3 6 Z-40 $^{\circ}\text{C}$ / Z+20 $^{\circ}\text{C}$ 10 8 6 4 3 3 3 3 4 4 6 10
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 storing the capacitors under no load at 105 $^{\circ}\text{C}$ for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20 $^{\circ}\text{C}$ , they will meet the specified value for endurance characteristics listed above.	Leakage current
Marking	Printed with white color letter on black sleeve.	

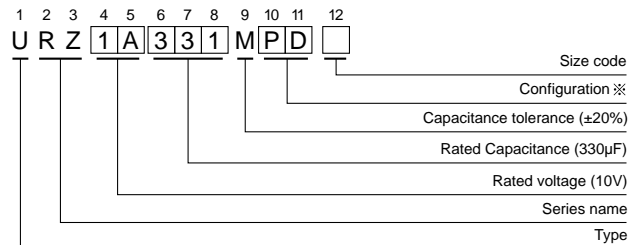
### Radial Lead Type



$\alpha$	(mm)	
	( $\phi D < 20$ )	( $\phi D \geq 20$ )
$\phi D$	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	

• Please refer to page 21 about the end seal configuration.

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



※ Configuration

$\phi D$	Pb-free leadwire Pb-free PET sleeve
5 · 6.3	DD
8 · 10	PD
12.5 ~ 18	HD
20	RD

Please refer to page 21, 22, 23 about the formed or taped product spec.  
Please refer to page 3 for the minimum order quantity.

• Dimension table in next page.

### ■ Dimensions

V		6.3		10		16		25		35		50	
Cap.( $\mu$ F)	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 $\phi$ D×L (mm)	Rated ripple

V		63		100		160		200		250		400	
Cap.( $\mu$ F)	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							Case size $\phi$ D×L (mm)	Rated ripple
470	471	16×15	640										

Rated Ripple (mArms) at 105°C 120Hz

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

### ● Frequency coefficient of rated ripple current

V	Cap.( $\mu$ F)	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, [6] will be put at 12th digit of type numbering system.