

**URZ**

Compact & Low-Profile Sized,  
Wide Temperature Range



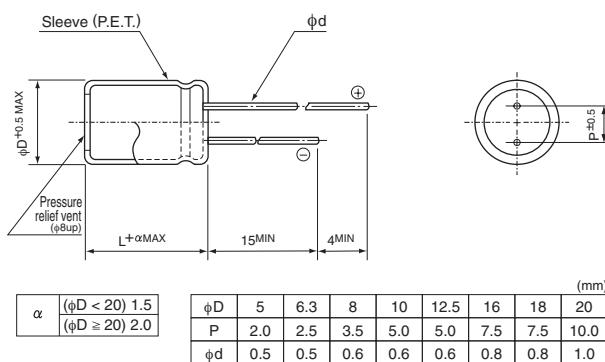
- Very small case sizes same as URS, but operating over wide temperature range of -55 (-40) to +105°C.
- Compliant to the RoHS directive (2011/65/EU).



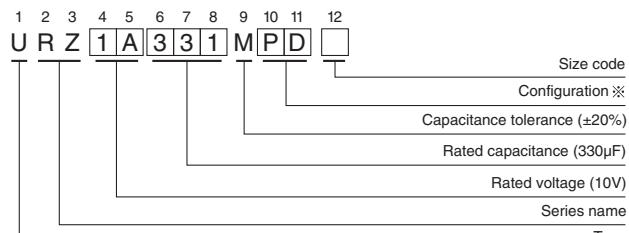
URS

**■ Specifications**

Item	Performance Characteristics																					
Category Temperature Range	-55 to +105°C (6.3 to 100V), -40 to +105°C (160 to 400V)																					
Rated Voltage Range	6.3 to 400V																					
Rated Capacitance Range	1 to 10000μF																					
Capacitance Tolerance	±20% at 120Hz, 20°C																					
Leakage Current	Rated voltage (V)	6.3 to 100						160 to 400														
		After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (μA), whichever is greater. After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (μA), whichever is greater.						After 1 minute's application of rated voltage at 20°C, I = 0.04CV+100 (μA) or less														
Tangent of loss angle (tan δ)	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF. Measurement frequency : 120Hz at 20°C	Rated voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	400								
		tan δ (MAX.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.08	0.20	0.20	0.25								
Stability at Low Temperature	Rated voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	400									
	Impedance ratio Z-25°C / Z+20°C	5	4	3	2	2	2	2	2	3	3	3	6									
	ZT / Z20 (MAX.)	10	8	6	4	3	3	3	3	4	4	6	10									
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 105°C.	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 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.																					
Marking	Printed with white color letter on black sleeve.																					

**■ Radial Lead Type**

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

**Type numbering system (Example : 10V 330μF)**

## ※ Configuration

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

Please refer to page 20, 21, 22 about the formed or taped product spec.  
Please refer to page 4 for the minimum order quantity.

● Dimension table in next page.

## URZ

## ■ Dimensions

V	6.3	10	16	25	35	50	
Cap.(μF)	Code	0J	1A	1C	1E	1V	1H
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  
φD × L (mm)  
Rated  
ripple

V	63	100	160	200	250	400	
Cap.(μF)	Code	1J	2A	2C	2D	2E	2G
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	Δ 18 × 20      300	★ 18 × 25      300
68	680			• 18 × 15      350	Δ 18 × 20      350	18 × 20      350	20 × 25      350
100	101	10 × 9      215	12.5 × 15      265	Δ 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					

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

Size φ16 × 20 is available for capacitors marked "●"  
Size φ20 × 15 is available for capacitors marked "△"  
Size φ20 × 20 is available for capacitors marked "★"In this case, [6] will be put at 12th digit of  
type numbering system.

## ● Frequency coefficient of rated ripple current

V	Frequency	50Hz	120Hz	300Hz	1 kHz	10kHz or more
6.3 to 100	1 to 47	0.75	1.00	1.35	1.57	2.00
	100 to 470	0.80	1.00	1.23	1.34	1.50
	1000 to 10000	0.85	1.00	1.10	1.13	1.15
160 to 400	10 to 220	0.80	1.00	1.25	1.40	1.60