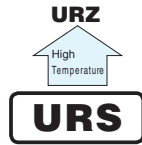


URS

Compact & Low-profile Sized

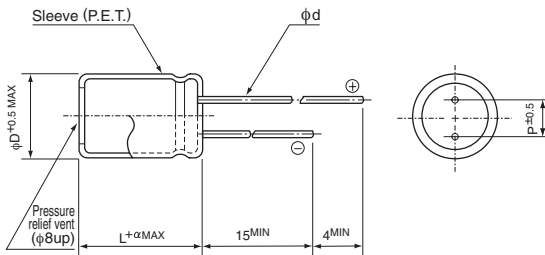


- Compact & low profile case size.
- Compliant to the RoHS directive (2011/65/EU).

Specifications

Item	Performance Characteristics																																							
Category Temperature Range	-40 to +85°C																																							
Rated Voltage Range	6.3 to 400V																																							
Rated Capacitance Range	1 to 10000µF																																							
Capacitance Tolerance	±20% at 120Hz, 20°C																																							
Leakage Current	<table border="1"> <tr> <th>Rated voltage (V)</th> <th>6.3 to 100</th> <th>160 to 400</th> </tr> <tr> <td>_____</td> <td>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.</td> <td>After 1 minute's application of rated voltage at 20°C, I = 0.04CV+100 (µA) or less</td> </tr> </table>	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																																	
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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 <table border="1"> <tr> <th>Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>200</th> <th>250</th> <th>400</th> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.25</td> </tr> </table>	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	0.20	0.20	0.20	0.25													
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	0.20	0.20	0.20	0.25																												
Stability at Low Temperature	Measurement frequency : 120Hz <table border="1"> <tr> <th>Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>200</th> <th>250</th> <th>400</th> </tr> <tr> <td>Impedance ratio Z-25°C / Z+20°C</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>3</td> <td>3</td> <td>6</td> </tr> <tr> <td>ZT / Z20 (MAX.) Z-40°C / Z+20°C</td> <td>12</td> <td>10</td> <td>8</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> <td>4</td> <td>6</td> <td>10</td> </tr> </table>	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.) Z-40°C / Z+20°C	12	10	8	5	4	3	3	3	4	4	6	10
	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.) Z-40°C / Z+20°C	12	10	8	5	4	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 2000 hours at 85°C. <table border="1"> <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																																	
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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 85°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

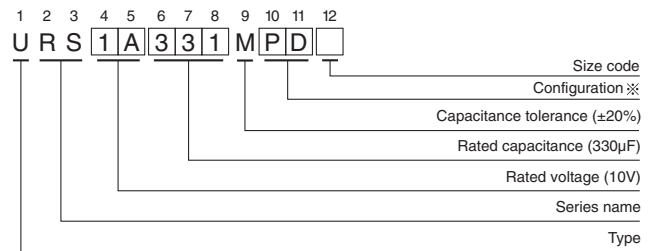


	(mm)							
φD	5	6.3	8	10	12.5	16	18	20
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0
φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8	1.0

α	(φD < 20) 1.5 (φD ≥ 20) 2.0
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• Please refer to page 20 about the end seal configuration.

Type numbering system (Example : 10V 330µF)



※ Configuration

φ 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.



■ Dimensions

V		6.3		10		16		25		35		50	
Cap.(μF)	Code	0J		1A		1C		1E		1V		1H	
2.2	2R2											5 × 9	26
3.3	3R3											5 × 9	35
4.7	4R7							5 × 9	30	5 × 9	35	5 × 9	40
10	100					5 × 9	40	5 × 9	50	5 × 9	55	5 × 9	65
22	220	5 × 9	35	5 × 9	55	5 × 9	70	5 × 9	75	5 × 9	95	5 × 9	90
33	330	5 × 9	55	5 × 9	75	5 × 9	85	5 × 9	95	5 × 9	100	6.3 × 9	120
47	470	5 × 9	75	5 × 9	90	5 × 9	100	5 × 9	110	6.3 × 9	130	6.3 × 9	140
100	101	5 × 9	125	5 × 9	135	6.3 × 9	160	6.3 × 9	180	8 × 9	220	10 × 9	240
220	221	6.3 × 9	200	6.3 × 9	220	8 × 9	290	10 × 9	310	10 × 9	340	10 × 12.5	420
330	331	6.3 × 9	250	8 × 9	300	10 × 9	360	10 × 9	380	10 × 12.5	480	12.5 × 12.5	530
470	471	8 × 9	330	8 × 9	360	10 × 9	410	10 × 12.5	530	12.5 × 12.5	590	16 × 15	750
1000	102	10 × 9	510	10 × 12.5	620	12.5 × 12.5	720	12.5 × 15	830	16 × 15	1010	18 × 20	1160
2200	222	12.5 × 15	890	12.5 × 15	960	16 × 15	1160	18 × 15	1360	18 × 20	1560	20 × 25	1750
3300	332	16 × 15	1200	16 × 15	1300	18 × 15	1460	18 × 20	1720	20 × 25	2000		
4700	472	16 × 15	1410	18 × 15	1550	18 × 20	1770	18 × 25	2050				
6800	682	18 × 15	1660	18 × 20	1850	18 × 25	2170					Case size φ D × L (mm)	Rated ripple
10000	103	18 × 20	2020	18 × 25	2350								

V		63		100		160		200		250		400	
Cap.(μF)	Code	1J		2A		2C		2D		2E		2G	
1	010			5 × 9	17								
2.2	2R2			5 × 9	26								
3.3	3R3			5 × 9	35								
4.7	4R7			6.3 × 9	45								
10	100	5 × 9	60	6.3 × 9	70							16 × 15	140
22	220	6.3 × 9	100	8 × 9	130					16 × 15	280	● 18 × 15	280
33	330	8 × 9	140	10 × 9	180			16 × 15	350	● 18 × 15	350	18 × 20	350
47	470	8 × 9	170	10 × 12.5	230	16 × 15	420	● 18 × 15	420	Δ 18 × 20	420	★ 18 × 25	420
68	680					● 18 × 15	490	Δ 18 × 20	490	18 × 20	490	20 × 25	490
100	101	10 × 9	250	12.5 × 15	370	Δ 18 × 20	590	★ 18 × 25	590	18 × 25	590		
150	151					★ 18 × 25	710	18 × 25	710				
220	221	12.5 × 12.5	490	16 × 15	620	20 × 25	770						
330	331	12.5 × 15	710	18 × 15	760							Case size φ D × L (mm)	Rated ripple
470	471	16 × 15	900										

Rated ripple current (mA_{rms}) at 85°C 120Hz

Size φ 16 × 20 is available for capacitors marked " ● "
 Size φ 20 × 15 is available for capacitors marked " Δ "
 Size φ 20 × 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	Cap.(μF)	Frequency				
		50Hz	120Hz	300Hz	1 kHz	10 kHz 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