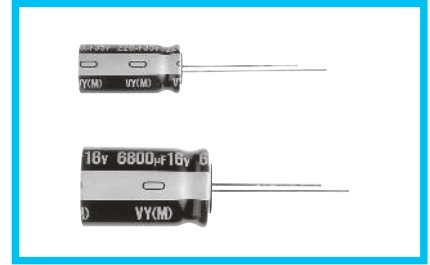
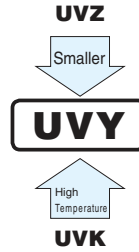


UVY Wide Temperature Range



- One rank smaller case sizes than UVZ.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).

Valued marked with an ※ in the dimension table are scheduled to be discontinued and are not recommended for new designs.

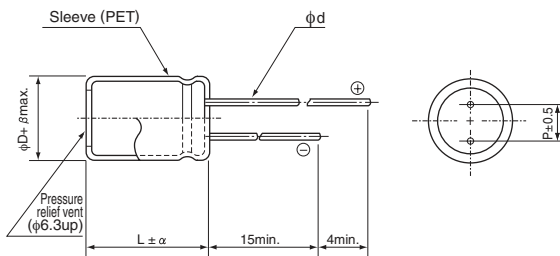


Specifications

Item	Performance Characteristics																																		
Category Temperature Range	-55 to +105°C (6.3 to 100V), -40 to +105°C (160 to 400V), -25 to +105°C (450V)																																		
Rated Voltage Range	6.3 to 450V																																		
Rated Capacitance Range	0.47 to 33000µF																																		
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 450</th> </tr> <tr> <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.</td> <td colspan="2">After 1 minute's application of rated voltage at 20°C, CV ≤ 1000: I = 0.1CV + 40 (µA) or less CV > 1000: I = 0.04CV + 100 (µA) or less</td> </tr> <tr> <td>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 colspan="2"></td> </tr> </table>	Rated voltage (V)	6.3 to 100	160 to 450	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 1 minute's application of rated voltage at 20°C, CV ≤ 1000: I = 0.1CV + 40 (µA) or less CV > 1000: I = 0.04CV + 100 (µA) or less		After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (µA), whichever is greater.																											
	Rated voltage (V)	6.3 to 100	160 to 450																																
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 1 minute's application of rated voltage at 20°C, CV ≤ 1000: I = 0.1CV + 40 (µA) or less CV > 1000: I = 0.04CV + 100 (µA) or less																																		
After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (µA), whichever is greater.																																			
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 to 250</th> <th>350 to 450</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>0.25</td> </tr> </table>	Rated voltage (V)	6.3	10	16	25	35	50	63	100	160 to 250	350 to 450	tan δ (max.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.20	0.25												
Rated voltage (V)	6.3	10	16	25	35	50	63	100	160 to 250	350 to 450																									
tan δ (max.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.20	0.25																									
Stability at Low Temperature	Measurement frequency : 120Hz																																		
	<table border="1"> <tr> <th colspan="2">Rated voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35 to 50</th> <th>63 to 100</th> <th>160 to 200</th> <th>250 to 350</th> <th>400</th> <th>450</th> </tr> <tr> <td rowspan="2">Impedance ratio (max.)</td> <td>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>3</td> <td>4</td> <td>6</td> <td>15</td> </tr> <tr> <td>Z(-40°C) / Z(+20°C)</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>4</td> <td>8</td> <td>10</td> <td>—</td> </tr> </table>	Rated voltage (V)		6.3	10	16	25	35 to 50	63 to 100	160 to 200	250 to 350	400	450	Impedance ratio (max.)	Z(-25°C) / Z(+20°C)	5	4	3	2	2	2	3	4	6	15	Z(-40°C) / Z(+20°C)	10	8	6	4	3	3	4	8	10
Rated voltage (V)		6.3	10	16	25	35 to 50	63 to 100	160 to 200	250 to 350	400	450																								
Impedance ratio (max.)	Z(-25°C) / Z(+20°C)	5	4	3	2	2	2	3	4	6	15																								
	Z(-40°C) / Z(+20°C)	10	8	6	4	3	3	4	8	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 (1000 hours for φD = 5, 6.3 and 8) at 105°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																												
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.																																		

※ I : Leakage Current (µA), C : Rated Capacitance (µF), V : Rated Voltage (V)

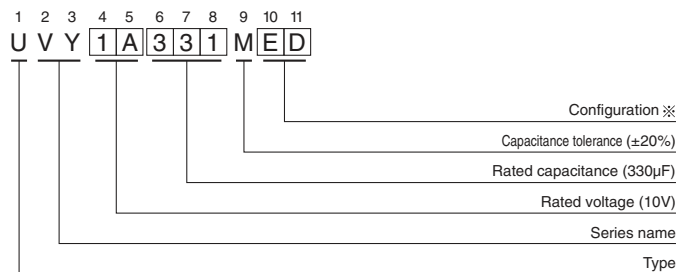
Radial Lead Type



	5	6.3	8	10	12.5	16	18	20	22	25
φD	5	6.3	8	10	12.5	16	18	20	22	25
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0	10.0	12.5
φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8	1.0	1.0	1.0
β	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0

α	(L < 20)	1.5
	(L ≥ 20)	2.0

Type numbering system (Example : 10V 330µF)



※ Configuration

φD	Pb-free leadwire Pb-free PET sleeve
5	DD
6.3	ED
8 · 10	PD
12.5 to 18	HD
20 to 25	RD

- Please refer to the Guidelines for Aluminum Electrolytic Capacitors for end seal configuration information.

Frequency coefficient of rated ripple current

V	Cap.(µF)	Frequency				
		50Hz	120Hz	300Hz	1 kHz	10 kHz or more
6.3 to 100	2.2 to 68	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 33000	0.85	1.00	1.10	1.13	1.15
160 to 450	0.47 to 220	0.80	1.00	1.25	1.40	1.60
	330 to 1000	0.90	1.00	1.10	1.13	1.15

• Dimension table in next page.

UVY

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D \times L (mm)	tan δ	Leakage Current (μ A)		Rated Ripple (mArms) (105°C/120Hz)	Part Number
				at 20°C after 1 minute	at 20°C after 2 minutes		
6.3 (0J)	1000	8 \times 11.5	0.28	189	63	390	UVY0J102MPD
	2200	10 \times 16	0.30	415.8	138.6	635	UVY0J222MPD
	3300	10 \times 20	0.32	623.7	207.9	840	UVY0J332MPD
	4700	12.5 \times 20	0.34	888.3	296.1	1090	UVY0J472MHD
	6800	12.5 \times 25	0.38	1285.2	428.4	1350	UVY0J682MHD
	10000	16 \times 25	0.46	1890	630	1650	UVY0J103MHD
	15000	16 \times 30.5	0.56	2835	945	1820	UVY0J153MHD
	22000	18 \times 35.5	0.70	4158	1386	2280	UVY0J223MHD
33000	20 \times 40	0.92	6237	2079	2500	※UVY0J333MRD	
10 (1A)	220	5 \times 11	0.24	66	22	155	※UVY1A221MDD
	330	6.3 \times 11	0.24	99	33	210	※UVY1A331MED
	470	6.3 \times 11	0.24	141	47	250	※UVY1A471MED
	1000	10 \times 12.5	0.24	300	100	460	UVY1A102MPD
	2200	10 \times 16	0.26	660	220	705	UVY1A222MPD
	3300	12.5 \times 20	0.28	990	330	1000	UVY1A332MHD
	4700	12.5 \times 25	0.30	1410	470	1260	UVY1A472MHD
	6800	16 \times 25	0.34	2040	680	1570	UVY1A682MHD
	10000	16 \times 30.5	0.42	3000	1000	1820	UVY1A103MHD
	15000	16 \times 35.5	0.52	4500	1500	2050	UVY1A153MHD
	22000	18 \times 40	0.66	6600	2200	2420	UVY1A223MHD
33000	22 \times 50	0.88	9900	3300	3210	※UVY1A333MRD	
16 (1C)	220	6.3 \times 11	0.20	105.6	35.2	190	※UVY1C221MED
	330	6.3 \times 11	0.20	158.4	52.8	225	※UVY1C331MED
	470	8 \times 11.5	0.20	225.6	75.2	315	UVY1C471MPD
	1000	10 \times 12.5	0.20	480	160	500	UVY1C102MPD
	2200	10 \times 20	0.22	1056	352	710	UVY1C222MPD
	3300	12.5 \times 25	0.24	1584	528	1170	UVY1C332MHD
	4700	16 \times 25	0.26	2256	752	1500	UVY1C472MHD
	6800	16 \times 25	0.30	3264	1088	1600	UVY1C682MHD
	10000	16 \times 35.5	0.38	4800	1600	1930	UVY1C103MHD
	15000	18 \times 40	0.48	7200	2400	2210	UVY1C153MHD
	22000	22 \times 40	0.62	10560	3520	2710	※UVY1C223MRD
33000	25 \times 50	0.84	15840	5280	3450	※UVY1C333MRD	
25 (1E)	100	5 \times 11	0.16	75	25	125	※UVY1E101MDD
	220	6.3 \times 11	0.16	165	55	200	※UVY1E221MED
	330	8 \times 11.5	0.16	247.5	82.5	275	UVY1E331MPD
	470	10 \times 12.5	0.16	352.5	117.5	380	UVY1E471MPD
	1000	10 \times 16	0.16	750	250	610	UVY1E102MPD
	2200	12.5 \times 25	0.18	1650	550	1090	UVY1E222MHD
	3300	16 \times 25	0.20	2475	825	1400	UVY1E332MHD
	4700	16 \times 25	0.22	3525	1175	1570	UVY1E472MHD
	6800	16 \times 35.5	0.26	5100	1700	1850	UVY1E682MHD
	10000	18 \times 40	0.34	7500	2500	2000	UVY1E103MHD
	15000	22 \times 50	0.44	11250	3750	2750	※UVY1E153MRD
22000	25 \times 50	0.58	16500	5500	3250	※UVY1E223MRD	

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code "1" and then add the appropriate code.

UVY

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D \times L (mm)	tan δ	Leakage Current (μ A)		Rated Ripple (mArms) (105°C/120Hz)	Part Number
				at 20°C after 1 minute	at 20°C after 2 minutes		
35 (1V)	47	5 \times 11	0.14	49.35	16.45	93	※UVY1V470MDD
	68	6.3 \times 11	0.14	71.4	23.8	110	※UVY1V680MED
	100	6.3 \times 11	0.14	105	35	150	※UVY1V101MED
	220	8 \times 11.5	0.14	231	77	250	UVY1V221MPD
	330	10 \times 12.5	0.14	346.5	115.5	350	UVY1V331MPD
	470	10 \times 16	0.14	493.5	164.5	460	UVY1V471MPD
	1000	12.5 \times 20	0.14	1050	350	810	UVY1V102MHD
	2200	16 \times 25	0.16	2310	770	1260	UVY1V222MHD
	3300	16 \times 30.5	0.18	3465	1155	1500	UVY1V332MHD
	4700	16 \times 35.5	0.20	4935	1645	1780	UVY1V472MHD
	6800	18 \times 40	0.24	7140	2380	2000	UVY1V682MHD
	10000	22 \times 50	0.32	10500	3500	2650	※UVY1V103MRD
15000	25 \times 50	0.42	15750	5250	3100	※UVY1V153MRD	
50 (1H)	2.2	5 \times 11	0.12	4	3	20	※UVY1H2R2MDD
	3.3	5 \times 11	0.12	4.95	3	25	※UVY1H3R3MDD
	4.7	5 \times 11	0.12	7.05	3	30	※UVY1H4R7MDD
	10	5 \times 11	0.12	15	5	46	※UVY1H100MDD
	22	5 \times 11	0.12	33	11	68	※UVY1H220MDD
	33	5 \times 11	0.12	49.5	16.5	90	※UVY1H330MDD
	47	6.3 \times 11	0.12	70.5	23.5	115	※UVY1H470MED
	68	6.3 \times 11	0.12	102	34	150	※UVY1H680MED
	100	8 \times 11.5	0.12	150	50	190	UVY1H101MPD
	220	10 \times 12.5	0.12	330	110	300	UVY1H221MPD
	330	10 \times 16	0.12	495	165	410	UVY1H331MPD
	470	10 \times 20	0.12	705	235	540	UVY1H471MPD
	1000	12.5 \times 25	0.12	1500	500	950	UVY1H102MHD
	2200	16 \times 30.5	0.14	3300	1100	1410	UVY1H222MHD
	3300	18 \times 35.5	0.16	4950	1650	1770	UVY1H332MHD
	4700	20 \times 40	0.18	7050	2350	2100	※UVY1H472MRD
6800	22 \times 50	0.22	10200	3400	2500	※UVY1H682MRD	
10000	25 \times 50	0.30	15000	5000	2850	※UVY1H103MRD	
63 (1J)	22	5 \times 11	0.10	41.58	13.86	71	※UVY1J220MDD
	33	6.3 \times 11	0.10	62.37	20.79	100	※UVY1J330MED
	47	6.3 \times 11	0.10	88.83	29.61	120	※UVY1J470MED
	68	8 \times 11.5	0.10	128.52	42.84	155	UVY1J680MPD
	100	8 \times 11.5	0.10	189	63	200	UVY1J101MPD
	220	10 \times 16	0.10	415.8	138.6	335	UVY1J221MPD
	330	10 \times 20	0.10	623.7	207.9	510	UVY1J331MPD
	470	12.5 \times 20	0.10	888.3	296.1	640	UVY1J471MHD
	1000	16 \times 25	0.10	1890	630	930	UVY1J102MHD
	2200	18 \times 35.5	0.12	4158	1386	1650	UVY1J222MHD
	3300	20 \times 40	0.14	6237	2079	1950	※UVY1J332MRD
	4700	22 \times 50	0.16	8883	2961	2450	※UVY1J472MRD
6800	25 \times 50	0.20	12852	4284	2800	※UVY1J682MRD	

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code "1" and then add the appropriate code.



■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D×L (mm)	tan δ	Leakage Current (μ A)		Rated Ripple (mArms) (105°C/120Hz)	Part Number
				at 20°C after 1 minute	at 20°C after 2 minutes		
100 (2A)	2.2	5×11	0.08	6.6	3	21	※UVY2A2R2MDD
	3.3	5×11	0.08	9.9	3.3	29	※UVY2A3R3MDD
	4.7	5×11	0.08	14.1	4.7	32	※UVY2A4R7MDD
	10	5×11	0.08	30	10	50	※UVY2A100MDD
	22	6.3×11	0.08	66	22	93	※UVY2A220MED
	33	8×11.5	0.08	99	33	130	UVY2A330MPD
	47	8×11.5	0.08	141	47	140	UVY2A470MPD
	68	10×12.5	0.08	204	68	190	UVY2A680MPD
	100	10×16	0.08	300	100	240	UVY2A101MPD
	220	12.5×20	0.08	660	220	390	UVY2A221MHD
	330	12.5×25	0.08	990	330	540	UVY2A331MHD
	470	16×25	0.08	1410	470	715	UVY2A471MHD
	1000	18×35.5	0.08	3000	1000	960	UVY2A102MHD
	2200	22×50	0.10	6600	2200	1750	※UVY2A222MRD
3300	25×50	0.12	9900	3300	2070	※UVY2A332MRD	
160 (2C)	10	8×11.5	0.20	164	—	41	UVY2C100MPD
	22	10×12.5	0.20	240.8	—	92	UVY2C220MPD
	33	10×16	0.20	311.2	—	125	UVY2C330MPD
	47	10×20	0.20	400.8	—	150	UVY2C470MPD
	68	12.5×20	0.20	535.2	—	250	UVY2C680MHD
	100	12.5×25	0.20	740	—	310	UVY2C101MHD
	220	16×30.5	0.20	1508	—	410	UVY2C221MHD
	330	18×35.5	0.20	2212	—	570	UVY2C331MHD
	470	18×40	0.20	3108	—	855	UVY2C471MHD
1000	25×50	0.20	6500	—	1350	※UVY2C102MRD	
200 (2D)	0.47	6.3×11	0.20	49.4	—	11	※UVY2DR47MED
	1	6.3×11	0.20	60	—	16	※UVY2D010MED
	2.2	6.3×11	0.20	84	—	25	※UVY2D2R2MED
	3.3	6.3×11	0.20	106	—	30	※UVY2D3R3MED
	4.7	6.3×11	0.20	134	—	35	※UVY2D4R7MED
	10	8×11.5	0.20	180	—	57	UVY2D100MPD
	22	10×16	0.20	276	—	105	UVY2D220MPD
	33	10×20	0.20	364	—	140	UVY2D330MPD
	47	12.5×20	0.20	476	—	195	UVY2D470MHD
	68	12.5×25	0.20	644	—	250	UVY2D680MHD
	100	16×25	0.20	900	—	320	UVY2D101MHD
	220	16×35.5	0.20	1860	—	500	UVY2D221MHD
	330	18×40	0.20	2740	—	675	UVY2D331MHD
470	22×40	0.20	3860	—	925	※UVY2D471MRD	

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If there is no size code in the part number, please add size code "1" and then add the appropriate code.

UVY

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D \times L (mm)	tan δ	Leakage Current (μ A)		Rated Ripple (mArms) (105°C/120Hz)	Part Number
				at 20°C after 1 minute	at 20°C after 2 minutes		
250 (2E)	3.3	6.3 \times 11	0.20	122.5	—	28	※UVY2E3R3MED
	4.7	6.3 \times 11	0.20	147	—	35	※UVY2E4R7MED
	10	10 \times 12.5	0.20	200	—	71	UVY2E100MPD
	22	10 \times 20	0.20	320	—	105	UVY2E220MPD
	33	10 \times 20	0.20	430	—	140	UVY2E330MPD
	47	12.5 \times 20	0.20	570	—	190	UVY2E470MHD
	68	16 \times 25	0.20	780	—	270	UVY2E680MHD
	100	16 \times 25	0.20	1100	—	310	UVY2E101MHD
	220	18 \times 35.5	0.20	2300	—	485	UVY2E221MHD
	330	20 \times 40	0.20	3400	—	710	※UVY2E331MRD
470	22 \times 50	0.20	4800	—	1000	※UVY2E471MRD	
350 (2V)	2.2	6.3 \times 11	0.25	117	—	21	※UVY2V2R2MED
	3.3	8 \times 11.5	0.25	146.2	—	30	UVY2V3R3MPD
	4.7	8 \times 11.5	0.25	165.8	—	39	UVY2V4R7MPD
	10	10 \times 12.5	0.25	240	—	64	UVY2V100MPD
	22	12.5 \times 20	0.25	408	—	105	UVY2V220MHD
	33	12.5 \times 25	0.25	562	—	170	UVY2V330MHD
	47	16 \times 25	0.25	758	—	210	UVY2V470MHD
	68	16 \times 25	0.25	1052	—	285	UVY2V680MHD
	100	18 \times 35.5	0.25	1500	—	370	UVY2V101MHD
	220	22 \times 50	0.25	3180	—	540	※UVY2V221MRD
330	25 \times 50	0.25	4720	—	710	※UVY2V331MRD	
400 (2G)	0.47	6.3 \times 11	0.25	58.8	—	8.5	※UVY2GR47MED
	1	6.3 \times 11	0.25	80	—	14	※UVY2G010MED
	2.2	8 \times 11.5	0.25	128	—	27	UVY2G2R2MPD
	3.3	8 \times 11.5	0.25	152.8	—	34	UVY2G3R3MPD
	4.7	10 \times 12.5	0.25	175.2	—	42	UVY2G4R7MPD
	10	10 \times 16	0.25	260	—	64	UVY2G100MPD
	22	12.5 \times 25	0.25	452	—	140	UVY2G220MHD
	33	16 \times 25	0.25	628	—	170	UVY2G330MHD
	47	16 \times 25	0.25	852	—	200	UVY2G470MHD
	68	16 \times 30.5	0.25	1188	—	240	UVY2G680MHD
	100	18 \times 35.5	0.25	1700	—	310	UVY2G101MHD
220	22 \times 50	0.25	3620	—	460	※UVY2G221MRD	
450 (2W)	2.2	8 \times 11.5	0.25	139	—	20	UVY2W2R2MPD
	3.3	10 \times 12.5	0.25	159.4	—	28	UVY2W3R3MPD
	4.7	10 \times 12.5	0.25	184.6	—	32	UVY2W4R7MPD
	10	10 \times 20	0.25	280	—	56	UVY2W100MPD
	22	12.5 \times 25	0.25	496	—	100	UVY2W220MHD
	33	16 \times 25	0.25	694	—	125	UVY2W330MHD
	47	16 \times 30.5	0.25	946	—	155	UVY2W470MHD
	68	18 \times 35.5	0.25	1324	—	185	UVY2W680MHD
	100	18 \times 40	0.25	1900	—	200	UVY2W101MHD
	220	25 \times 50	0.25	4060	—	250	※UVY2W221MRD

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code "1" and then add the appropriate code.

• For formed lead or taped product specifications and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.