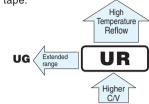
## ALUMINUM ELECTROLYTIC CAPACITORS

### nichicon





- Chip type, higher capacitance in larger case sizes.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU).



ws

wx

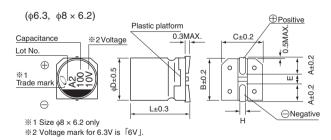


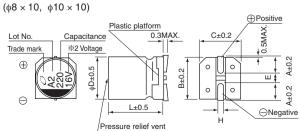
#### Specifications

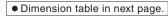
Performance Characteristics												
-40 to +85°C												
4 to 100V												
3.3 to 1500µF												
±20% at 120Hz, 20°C												
After 1 minute's application of rated voltage, leakage current is not more than 0.03CV (μA).												
Measurement frequency : 120Hz at 20°C												
									63	100		
tan δ (MAX.) 0.35 0	).28	0.24	0.2	20	0.16	0	.14 (	).12	0.12	0.12		
								Measur	ement frequ	ency: 120Hz		
Rated voltage (V)	4	6.3	-	-	16	25	35	50	63	100		
	,	-			-					2		
ZT / Z20 (MAX.)   Z–40°C / Z+20°C	15	10	8		6	4	3	3	3	3		
					thin ±20% of the initial capacitance value							
								1				
voltage is applied for 2000 hours at 8	50.		Leak	kage	current	Les	s than or eq	lai to the	initial specif	led value		
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.												
The capacitors are kept on a hot plate for 30 seconds,						hange						
			ļ				Less than or equal to the initial specified value					
			L	Leakage current Less than or equal to the initial specified					specified value			
Black print on the case top.												
	$\begin{array}{c c} 4 \text{ to 100V} \\ \hline 3.3 \text{ to 1500} \mu\text{F} \\ \pm 20\% \text{ at 120Hz, } 20^{\circ}\text{C} \\ \hline \text{After 1 minute's application of rated w} \\ \hline \text{Rated voltage (V)} & 4 \\ \hline \text{tan } \delta (\text{MAX.}) & 0.35 \\ \hline \text{C} \\ \hline \text{Impedance ratio} \\ \hline \text{Z-25}^{\circ}\text{C} / \text{Z+20}^{\circ}\text{C} \\ \hline \text{ZT} / \text{Z20} (\text{MAX.}) \\ \hline \text{Z-40}^{\circ}\text{C} / \text{Z+20}^{\circ}\text{C} \\ \hline \text{The specifications listed at right shall the capacitors are restored to 20^{\circ}\text{C} a voltage is applied for 2000 hours at 8 \\ \hline \text{After storing the capacitors under no clause 4.1 at 20^{\circ}\text{C}, they shall meet th The capacitors are kept on a hot plat which is maintained at 250^{\circ}\text{C}. The capacitors requirements listed at solution of the capacitor capacitor capacitors are set of the characteristic requirements listed at 250^{\circ}\text{C}. The capacitors are leaved on the capacitor capacitor capacitor capacitors capacitors and the capacitors are kept on a hot plat which is maintained at 250^{\circ}\text{C}. The capacitors capacitor capacitor capacitors capacitors capacitors are leaved on a capacitor capacitor capacitor capacitors are leaved on a capacitor capacitor capacitor capacitor capacitors are kept on a hot plat which is maintained at 250^{\circ}\text{C}. The capacitor capacit$	4 to 100V   3.3 to 1500µF $\pm 20\%$ at 120Hz, 20°C   After 1 minute's application of rated voltage, later 1 minute's applications later 1 minute's applications later 1 minute's applied for 2 minute 1 minute's applied for 2 minute 1 minute's applied for 2000 hours at 85°C.   After storing the capacitors under no load at 8 clause 4.1 at 20°C, they shall meet the specific The capacitors are kept on a hot plate for 30 s which is maintained at 250°C. The capacitors are the characteristic requirements listed at right vare removed from the plate and restored to 20	4 to 100V   3.3 to 1500µF $\pm 20\%$ at 120Hz, 20°C   After 1 minute's application of rated voltage, leakage cu   Rated voltage (V) 4 6.3 10   tan $\delta$ (MAX.) 0.35 0.28 0.24   Rated voltage (V) 4 6.3   Impedance ratio Z-25°C / Z+20°C 7 5   ZT / Z20 (MAX.) Z-40°C / Z+20°C 15 10   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.   After storing the capacitors under no load at 85°C for 10 clause 4.1 at 20°C, they shall meet the specified values of the capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C.	4 to 100V   3.3 to 1500µF $\pm 20\%$ at 120Hz, 20°C   After 1 minute's application of rated voltage, leakage current is   Rated voltage (V) 4 6.3 10 16   tan $\delta$ (MAX.) 0.35 0.28 0.24 0.2   Rated voltage (V) 4 6.3 10   Impedance ratio Z-25°C / Z+20°C 7 5 4   ZT / Z20 (MAX.) Z-40°C / Z+20°C 15 10 8   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.   After storing the capacitors under no load at 85°C for 1000 hour clause 4.1 at 20°C, they shall meet the specified values for the The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C.	4 to 100V   3.3 to 1500µF $\pm 20\%$ at 120Hz, 20°C   After 1 minute's application of rated voltage, leakage current is not   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.   After storing the capacitors under no load at 85°C for 1000 hours at clause 4.1 at 20°C, they shall meet the specified values for the end the capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the values for the end the capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the values for the values for the plate and restored to 20°C.	4 to 100V   3.3 to 1500µF $\pm 20\%$ at 120Hz, 20°C   After 1 minute's application of rated voltage, leakage current is not more than   Rated voltage (V) 4 6.3 10 16 25   tan $\delta$ (MAX.) 0.35 0.28 0.24 0.20 0.16   Rated voltage (V) 4 6.3 10 16   Impedance ratio Z-25°C / Z+20°C 7 5 4 3   ZT / Z20 (MAX.) Z-40°C / Z+20°C 15 10 8 6   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. Capacitance change tan $\delta$ Leakage current   After storing the capacitors under no load at 85°C for 1000 hours and then per clause 4.1 at 20°C, they shall meet the specified values for the endurance cha the characteristic requirements listed at right when they are removed from the plate and restored to 20°C. Capacitance of tan $\delta$	4 to 100V   3.3 to 1500µF $\pm 20\%$ at 120Hz, 20°C   After 1 minute's application of rated voltage, leakage current is not more than 0.03CV   Rated voltage (V) 4 6.3 10 16 25 3   tan $\delta$ (MAX.) 0.35 0.28 0.24 0.20 0.16 0   Rated voltage (V) 4 6.3 10 16 25 3   Impedance ratio Z-25°C / Z+20°C 7 5 4 3 2   ZT / Z20 (MAX.) Z-40°C / Z+20°C 15 10 8 6 4   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. Capacitance change With tan $\delta$ 200   After storing the capacitors under no load at 85°C for 1000 hours and then performing clause 4.1 at 20°C, they shall meet the specified values for the endurance characteris   Capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C. Capacitance change tan $\delta$ Leakage current Leakage current	4 to 100V   3.3 to 1500µF $\pm 20\%$ at 120Hz, 20°C   After 1 minute's application of rated voltage, leakage current is not more than 0.03CV (µA).   Rated voltage (V) 4   6.3 10 16 25   10 16 25 35   10 16 25 35   11 0.35 0.28 0.24 0.20 0.16 0.14 0   11 Rated voltage (V) 4 6.3 10 16 25 35 0   11 Rated voltage (V) 4 6.3 10 16 25 35   11 Rated voltage (V) 4 6.3 10 16 25 35   11 Rated voltage (V) 4 6.3 10 16 25 35   12 ZT / Z20 (MAX.) Z-40°C / Z+20°C 7 5 4 3 2 2   2 ZT / Z20 (MAX.) Z-40°C / Z+20°C 15 10 8 6 4 3   The specifications listed at right shall be met when the capacitors are restored to 20°C	4 to 100V3.3 to 1500µF $\pm 20\%$ at 120Hz, 20°CAfter 1 minute's application of rated voltage, leakage current is not more than 0.03CV (µA).Rated voltage (V)46.3101625253550tan $\delta$ (MAX.)0.350.280.240.200.160.140.12Measurement fMeasurement is not more than 0.03CV (µA).Measurement f101625253550101625252227 / Z20 (MAX.)Z-40°C / Z+20°C7543222222275432222754322227754333The 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.After storing the capacitors under no load at 85°C for 1000 hours and then performing voltage treatment clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and	4 to 100V3.3 to 1500µF $\pm 20\%$ at 120Hz, 20°CMeasurement frequency : 1:Measurement frequency : 1:Mea		

l

### Chip Type







### CAT.8100D

### Type numbering system (Example : 10V 100µF)

12	3 4	5 6	78	9 10		14			
<u> </u>	<u>н і</u>	A 1	01			S			
								Pac	kage code
									Size code
								Co	nfiguration
					Capacitance	e tolerance (±20	1%)	φD×L	Code
					Rated ca	pacitance (100	ιF)	$6.3 \times 5.8$	CL
					B	ated voltage (1	OV)	$6.3 \times 7.7$	CL
						0 (		8 × 6.2	CL
						Series na	me	8 × 10	NL
						Ty	/pe	10 × 10	NL

			-		(mm)
	$6.3 \times 5.8$	$6.3 \times 7.7$	8 × 6.2	8 × 10	10 × 10
A	2.4	2.4	3.3	2.9	3.2
В	6.6	6.6	8.3	8.3	10.3
С	6.6	6.6	8.3	8.3	10.3
E	2.2	2.2	2.3	3.1	4.5
L	5.8	7.7	6.2	10	10
Н	0.5 to 0.8	0.5 to 0.8	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1

Rated ripple current (mArms) at 85°C 120Hz



#### Dimensions

	V		4	6	.3	1	0	1	6	2	25	3	5	5	0	6	3	10	00
Cap.(µF)	Code	0	G	C	)J	1	A	1	С	1	E	1	V	1	Н	1	J	2	A
3.3	3R3																	6.3×5.8	29
4.7	4R7															6.3×5.8	31	• 8×6.2	40 (35)
10	100								1		1					8×6.2	46	8×10	77
22	220													6.3×5.8	45	8×10	96	8×10	100
33	330											6.3×5.8	55	0 8×6.2	95 (94)	8×10	117	10×10	130
47	470									6.3×5.8	65	• 8×6.2	105 (94)	0 8 x 10	140 (105)	8×10	140	10×10	155
100	101					6.3×5.8	70	8×6.2	125	0 8×6.2	145 (143)	○ 8 x 10	175 (132)	■10×10	195 (181)	10×10	232		
150	151					6.3×5.8	85	6.3×7.7	151	8×10	192	8×10	214	10×10	238				
220	221			•8×6.2	160 (143)	○8×6.2	175 (173)	08x10	215 (162)	■10×10	250 (232)	■10×10	265 (246)	10×10	289				
330	331	6.3×5.8	152	08x6.2	190 (188)	8×10	240	8×10	270	■10×10	305 (284)	10×10	324						
470	471	6.3×7.7	200	8×10	265	8×10	290	■10×10	330 (307)	10×10	393								
680	681	8×10	284	8×10	318	10×10	374	10×10	396										
1000	102	8×10	344	■10×10	400 (372)	10×10	454											Case size	Rated
1500	152	10×10	347	10×10	489													- φD × L (mm)	ripple

Size  $\phi$ 6.3 × 5.8 is available for capacitors marked. "•" Size  $\phi$ 6.3 × 7.7 is available for capacitors marked. "•" Size  $\phi$ 8 × 10 is available for capacitors marked. "•" \* In this case, (a) will be put at 12th digit of type numbering system.

### • Frequency coefficient of rated ripple current

Cap.(µF) Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Less than 47	0.80	1.00	1.15	1.40	1.67
100 to 1500	0.85	1.00	1.08	1.20	1.30

• Taping specifications are given in page 23.

- Recommended land size, soldering by reflow are given in page 18, 19.
- Please select UG(p.158) series if high CV products are required.
- Please refer to page 3 for the minimum order quantity.

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Aluminum Electrolytic Capacitors - SMD category:

Click to view products by Nichicon manufacturer:

Other Similar products are found below :

EEV-FK1E332W ULV2H4R7MNL1GS ULV2H1R8MNL1GS 22927 NRWA331M63V12.5X20TBF HUB1800-S UCX1V471MNQ1MS RJ4-400V100MI5#-T4 UCX1V681MNQ1MS RYK-50V101MG5TT-FL UCX1V681MNS1MS UCX1V221MCS1GS UCX1V101MCS1GS 107AXZ016MQ5 EXV107M025A9HAA UCD1V100MCQ1GS UCX1H471MNQ1MS 107SML016M EDK226M035A9DAA EDT476M050S9MAA EEV-HA0J152P EEV-HA1A471UP EEV-HA1C220WR EEV-HA1C471P EEV-HA1E331UP EEV-HA1H3R3R EEV-HA1H470UP EEV-HA1HR47R EEV-HA1V470UP EEV-HB0G221P EEV-HB0J330R EEV-HB1E220P UCX1H821MNQ1MS UCX1H561MNS1MS UCX1H471MNS1MS UCX1H102MNQ1MS UCX1E332MNS1MS HZA277M035G24T-F TYEH1V337H10MTR EDT107M035S9MAA BMVK100ADA330MF60G BMVK160ADA4R7MD60G NACK222M10V12.5X14TR13F NRLF332M25V22X20F NRSZ102M16V10X22TBF EEV-HA1H330UP MAL215097513E3 UCZ1V681MNQ1MS EEE-FT1C122UP EEE-FT1C821UP