ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

UUG

Chip Type, Higher Capacitance Range

For SMD

Anti-Solvent Feature (Through 100V only)

- Chip Type, higher capacitance in larger case sizes (φ12.5, φ16, φ18)
- 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,(EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.

UUJ
Wide Temperature
UUG



■Specifications

Item	Performance Characteristics		
Category Temperature Range	−40 to +85°C		
Rated Voltage Range	6.3 to 450V		
Rated Capacitance Range	4.7 to 10000μF		
Capacitance Tolerance	±20% at 120Hz, 20°C		
Leakage Current	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.	I = 0.04CV+100 (μA) max. (1 minute's at 20°C)

Tangent of loss angle (tan δ)

Measurement frequency : 120Hz at 20°C

Rated voltage (V)	6.3	10	16	25	35	50	63	100	160 to 250	400・450
tan δ (MAX.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.20	0.25

For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF. (φ12.5 to φ18)

Stability at Low Temperature

Measurement frequency: 120Hz

Rated voltage (V)		6.3	10	16	25	35	50	63	100	160 to 250	400・450
Impedance ratio (MAX.)	Z−25°C / Z+20°C	5	4	3	2	2	2	2	2	3	6
	Z−40°C / Z+20°C	12	10	8	5	4	3	3	3	6	10

Endurance

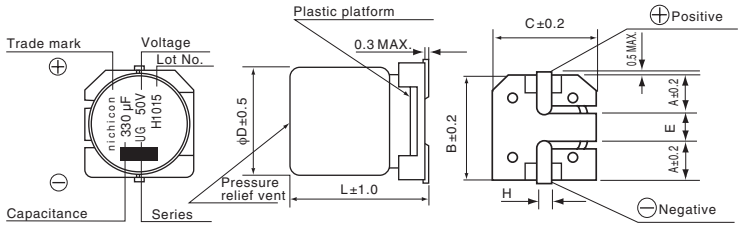
The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 85°C.

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 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: Black print on the case top.

■Chip Type



(mm)

ϕD	12.5×13.5	12.5×16	12.5×21	16×16.5	16×21.5	18×16.5	18×21.5
A	4.8	4.8	4.8	5.4	5.4	6.4	6.4
B	13.6	13.6	13.6	17.1	17.1	19.1	19.1
C	13.6	13.6	13.6	17.1	17.1	19.1	19.1
E	4.0	4.0	4.0	6.3	6.3	6.3	6.3
L	13.5	16.0	21.0	16.5	21.5	16.5	21.5
H	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4

Type numbering system (Example : 50V 330μF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
U	U	G	1	H	3	3	1	M	N	Q	1	M	S

- 1 2 3: Type
- 4: Series name
- 5: Rated voltage (50V)
- 6 7 8: Rated capacitance (330μF)
- 9: Capacitance Tolerance (±20%)
- 10 11: Configuration
- 12: Size code
- 13 14: Package code

※ The vibration structure-resistant product is also available upon request, please ask for details.

● Frequency coefficient of rated ripple current

V	Cap.(μF) \ Frequency	50Hz	120Hz	300Hz	1kHz	10kHz or more
6.3 to 100	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 10000	0.85	1.00	1.10	1.13	1.15
160 to 450	4.7 to 100	0.80	1.00	1.25	1.40	1.60

● Dimension table in next page.

UUG

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20℃ after 1 minute)	Rated Ripple (mArms) (85℃/120Hz)	Part Number
6.3 (0J)	2200	12.5×16	0.30	415.8	890	UUG0J222MNQ1MS
	3300	16×16.5	0.32	623.7	1200	UUG0J332MNQ1MS
	3300	12.5×21	0.32	623.7	1200	UUG0J332MNQ6MS
	4700	16×16.5	0.34	888.3	1400	UUG0J472MNQ1MS
	6800	18×16.5	0.38	1285.2	1650	UUG0J682MNQ1MS
	6800	16×21.5	0.38	1285.2	1650	UUG0J682MNQ6MS
	10000	18×21.5	0.46	1890	2000	UUG0J103MNQ1MS
10 (1A)	1000	12.5×13.5	0.24	300	620	UUG1A102MNQ1MS
	2200	12.5×16	0.26	660	960	UUG1A222MNQ1MS
	3300	16×16.5	0.28	990	1300	UUG1A332MNQ1MS
	4700	18×16.5	0.30	1410	1500	UUG1A472MNQ1MS
	4700	16×21.5	0.30	1410	1500	UUG1A472MNQ6MS
	6800	18×21.5	0.34	2040	1850	UUG1A682MNQ1MS
	10000	18×21.5	0.42	3000	2200	UUG1A103MNQ6MS
16 (1C)	1000	12.5×13.5	0.20	480	710	UUG1C102MNQ1MS
	2200	16×16.5	0.22	1056	1150	UUG1C222MNQ1MS
	2200	12.5×21	0.22	1056	1150	UUG1C222MNQ6MS
	3300	18×16.5	0.24	1584	1450	UUG1C332MNQ1MS
	3300	16×21.5	0.24	1584	1450	UUG1C332MNQ6MS
	4700	18×21.5	0.26	2256	1750	UUG1C472MNQ1MS
25 (1E)	470	12.5×13.5	0.16	352.5	550	UUG1E471MNQ1MS
	1000	12.5×16	0.16	750	820	UUG1E102MNQ1MS
	2200	18×16.5	0.18	1650	1350	UUG1E222MNQ1MS
	2200	16×21.5	0.18	1650	1350	UUG1E222MNQ6MS
	3300	18×21.5	0.20	2475	1700	UUG1E332MNQ1MS
35 (1V)	470	12.5×13.5	0.14	493.5	580	UUG1V471MNQ1MS
	1000	16×16.5	0.14	1050	1000	UUG1V102MNQ1MS
	1000	12.5×21	0.14	1050	1000	UUG1V102MNQ6MS
	2200	18×21.5	0.16	2310	1550	UUG1V222MNQ1MS
50 (1H)	220	12.5×13.5	0.12	330	450	UUG1H221MNQ1MS
	330	12.5×13.5	0.12	495	520	UUG1H331MNQ1MS
	470	16×16.5	0.12	705	740	UUG1H471MNQ1MS
	470	12.5×21	0.12	705	740	UUG1H471MNQ6MS
	1000	18×21.5	0.12	1500	1150	UUG1H102MNQ1MS
63 (1J)	100	12.5×13.5	0.10	189	370	UUG1J101MNQ1MS
	220	12.5×16	0.10	415.8	580	UUG1J221MNQ1MS
	330	16×16.5	0.10	623.7	680	UUG1J331MNQ1MS
	330	12.5×21	0.10	623.7	680	UUG1J331MNQ6MS
	470	18×16.5	0.10	888.3	850	UUG1J471MNQ1MS
	470	16×21.5	0.10	888.3	850	UUG1J471MNQ6MS
100 (2A)	68	12.5×13.5	0.08	204	350	UUG2A680MNQ1MS
	100	12.5×16	0.08	300	440	UUG2A101MNQ1MS
	220	18×16.5	0.08	660	665	UUG2A221MNQ1MS
	220	16×21.5	0.08	660	665	UUG2A221MNQ6MS
	330	18×21.5	0.08	990	825	UUG2A331MNQ1MS

UUG

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20℃ after 1 minute)	Rated Ripple (mArms) (85℃/120Hz)	Part Number
160 (2C)	47	12.5×16	0.20	400.8	370	UUG2C470MNQ1MS
	68	16×16.5	0.20	535.2	500	UUG2C680MNQ1MS
	68	12.5×21	0.20	535.2	500	UUG2C680MNQ6MS
	100	18×16.5	0.20	740	590	UUG2C101MNQ1MS
	100	16×21.5	0.20	740	590	UUG2C101MNQ6MS
200 (2D)	22	12.5×13.5	0.20	276	235	UUG2D220MNQ1MS
	33	12.5×16	0.20	364	310	UUG2D330MNQ1MS
	47	16×16.5	0.20	476	415	UUG2D470MNQ1MS
	47	12.5×21	0.20	476	415	UUG2D470MNQ6MS
	68	18×16.5	0.20	644	505	UUG2D680MNQ1MS
	68	16×21.5	0.20	644	505	UUG2D680MNQ6MS
	100	18×21.5	0.20	900	590	UUG2D101MNQ1MS
250 (2E)	10	12.5×13.5	0.20	200	150	UUG2E100MNQ1MS
	22	12.5×16	0.20	320	240	UUG2E220MNQ1MS
	33	16×16.5	0.20	430	340	UUG2E330MNQ1MS
	33	12.5×21	0.20	430	340	UUG2E330MNQ6MS
	47	18×16.5	0.20	570	415	UUG2E470MNQ1MS
	47	16×21.5	0.20	570	415	UUG2E470MNQ6MS
	68	18×21.5	0.20	780	490	UUG2E680MNQ1MS
400 (2G)	4.7	12.5×13.5	0.25	175.2	115	UUG2G4R7MNQ1MS
	10	16×16.5	0.25	260	140	UUG2G100MNQ1MS
	10	12.5×21	0.25	260	140	UUG2G100MNQ6MS
	22	18×16.5	0.25	452	280	UUG2G220MNQ1MS
	22	16×21.5	0.25	452	280	UUG2G220MNQ6MS
	33	18×21.5	0.25	628	350	UUG2G330MNQ1MS
	47	18×21.5	0.25	852	430	UUG2G470MNQ6MS
450 (2W)	4.7	12.5×13.5	0.25	184.6	115	UUG2W4R7MNQ1MS
	10	16×16.5	0.25	280	140	UUG2W100MNQ1MS
	10	12.5×21	0.25	280	140	UUG2W100MNQ6MS
	22	16×21.5	0.25	496	275	UUG2W220MNQ1MS
	33	18×21.5	0.25	694	345	UUG2W330MNQ1MS

- Taping specifications are given in page 20.
- Recommended land size, soldering by reflow are given in page 16, 17.
- Please refer to page 3 for the minimum order quantity.

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

nichicon:

UCY2D270MPD1TD UHE1C471MPD UHE1V471MPD1TD UPM1V121MPD1TD UUD1V101MNL1GS
LLS1K103MELC UBT1E101MPD8TD UHE1H471MHD6CV UUL1H470MNL1GS UWT1V4R7MCL1GB
PCK0J331MCO1GS UHE1E102MHD3TN UHE1V122MHD UHW1H331MPD1TD UPW1C471MPD1TD
UPW1E470MDD UUD1V680MCL1GS UVR1J102MHD1TN UWT1A151MCL1GS PCH1V331MCL1GS
UUD1H100MCL1GS PCV1V101MCL1GS UBY2A471MHL UPZ2G101MHDBZX-U PCL1C471MCL1GS
UCW1V470MCL1GS UHE1H221MPD1TD PCF1A331MCL4GS PCH1C471MCL1GS UCD1V151MCL6GS