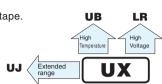
ALUMINUM ELECTROLYTIC CAPACITORS

Chip Type, Wide Temperature Range series

For SMD Anti-Solvent Feature (Through

- Chip type, operating over wide temperature range of to -55 to +105°C.
- 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).



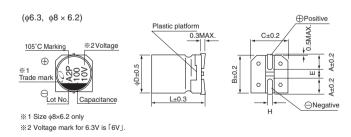


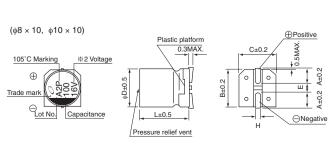
■Specifications

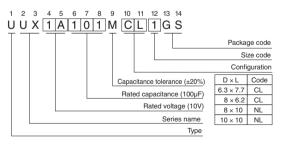
Item	Performance Characteristics															
Category Temperature Range	-55 to +105°C (6.3 to 100V), -40 to +105°C (160 to 400V)															
Rated Voltage Range	6.3 to 400V															
Rated Capacitance Range	1 to 1000μF	1 to 1000µF														
Capacitance Tolerance	±20% at 120Hz, 20°0	0														
Leakage Current	Rated voltage	(V)					6.3 to						160 to 400			
Leakage Current	Leakage Curr	rent	After 1	I minute's a	oplication	of rated vo	ltage, le	akage curre	ent is not mo	re than 0.03	BCV (μA).	I = 0.	04CV+10) (μA) max	.(1 minute's)	
											_	_		,	Hz at 20°C	
Tangent of loss angle (tan δ)	Rated voltage (V)	6.3	10	16	25	3		50	63	100	160	_	200	250	400	
	tan δ (MAX.)	0.22	0.19	0.16	0.14	0.	12	0.10	0.10	0.08	0.2	0	0.20	0.20	0.25	
	Measurement frequency: 120Hz															
Stability at Low Temperature	Rated volt	tage (V)		6.3	10	16	25	35	50	63	100	160	200	250	400	
Stability at Low Temperature		Z-55°C / Z		4	4	3	3	3	2	3	4	_			_	
	ZT / Z20 (MAX.)	Z-40°C / Z	+20°C		_				_	_		6	6	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 (160 to 400V : 3000hours) at 105°C. Capacitance change Within ±20% of the initial capacita tan δ 200% or less than the initial specifications. Leakage current Less than or equal to the initial specifications.							pecified va	alue							
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.															
Resistance to soldering	The capacitors are						Ca	pacitance	e change	Withir	1±10% c	of the in	nitial cap	acitance v	alue	
	which is maintained the characteristic re						tan	δ		Less t	han or e	qual to	the initia	al specifie	d value	
heat	removed from the p					icy ale	Lea	akage cu	rrent	Less t	han or e	qual to	the initia	al specified	d value	
Marking	Black print on the cas	se top.														

■ Chip Type

Type numbering system (Example : 10V 100 $\mu\text{F})$







				(mm)
φD×L	6.3×7.7	8 × 6.2	8 × 10	10 × 10
Α	2.4	3.3	2.9	3.2
В	6.6	8.3	8.3	10.3
С	6.6	8.3	8.3	10.3
E	2.2	2.3	3.1	4.5
L	7.7	6.2	10	10
Н	0.5 to 0.8	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1



Dimensions

Cap.	V	6	.3	1	0	1	6	2	5	3	5	5	0	6	3	10	00
(μF)	Code	C)J	1	Α	1	С	1	E	1	V	11	Н	1	J	2	A
4.7	4R7														!	8×6.2	42
10	100													8×6.2	51	8×10	75
22	220				!							0 8×6.2	67(64)	8×10	108	■10×10	150(121)
33	330									○ 8×6.2	76(75)	8×10	133	■10×10	185(179)	10×10	180
47	470							0 8×6.2	79(78)	8×10	124	■10×10	180(167)	10×10	220	10×10	230
100	101			8×6.2	90	0 8×10	148(111)	8×10	181	■ 10×10	304(283)	10×10	310	10×10	320		
220	221	0 8×10	161(121)	8×10	173	■ 10×10	330(307)	■10×10	351(283)	10×10	450				1		
330	331	8×10	288	■10×10	318(296)	■ 10×10	441(410)	10×10	372						i !		
470	471	■ 10×10	340(316)	■10×10	351(326)	10×10	489								!		
680	681	10×10	408	10×10	392										!	Case size	Rated
1000	102	10×10	495		 											φD × L (mm)	ripple

Cap. V		10	60	20	00	25	50	40	00
(μ F)			2C		D	2	E	2G	
1	010							8×10	25
1.8	1R8							8×10	26
2.2	2R2							8×10	27
3.3	3R3			8×10	31	8×10	31	10×10	38
3.9	3R9			8×10	34	8×10	34	10×10	39
4.7	4R7			8×10	37	8×10	37	10×10	40
6.8	6R8			8×10	44	8×10	44		
10	100	8×10	57	10×10	64	10×10	64		
18	180	10×10	64						

Rated ripple current (mArms) at 105°C 120Hz

Size ϕ 6.3 × 7.7 is available for capacitors marked. "○" / Size ϕ 8 × 10 is available for capacitors marked. "■" * In this case, $\boxed{6}$ 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	
1 to 47	0.80	1.00	1.15	1.40	1.67	
100 to 1000	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 UJ(p.160) series if high C/V products are regired.
- Please refer to page 3 for the minimum order quantity.