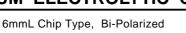
# ALUMINUM ELECTROLYTIC CAPACITORS

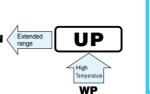




- Chip type, bi-polarized withstanding high temperature range up to +105°C.
- Designed for surface mounting on high density PC board.

series

• Applicable to automatic mounting machine using carrier tape.

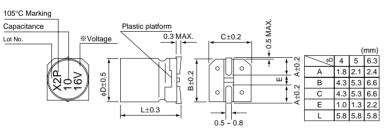




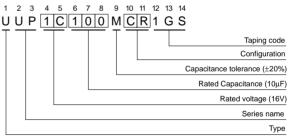
### Specifications

Item	Performance Characteristics													
Category Temperature Range	−55 ~ +105°C	−55 ~ +105°C												
Rated Voltage Range	6.3 ~ 50V													
Rated Capacitance Range	0.1 ~ 47µF													
Capacitance Tolerance	±20% at 120Hz, 20°C													
Leakage Current	After 2 minutes' ap	plication of rat	ted volta	age, l	eakag	ge current i	s not m	ore	than 0.05 C	CV or 10 (µ	IA), whiche	ver is grea	ater.	
	Measurement frequency : 120Hz, Temperature : 20°C													
tan δ	Rated voltage (V)	Rated voltage (V) 6.3 10		0		16	25		35		50	]		
	tan δ (MAX.)	δ (MAX.) 0.24 0.2		20		0.17 0.1		17	0.15		0.15			
	Measurement frequency : 120Hz													
	Rated voltage (V)			6.3		10	16		25	35	50			
Stability at Low Temperature	Impedance ratio	Z–25°C / Z+		4	-	3	2		2	2	2			
	ZT / Z20 (MAX.)	Z-40°C / Z+	-20°C	6	3	6	4		4	3	3	]		
Endurance	After 1000 hours' application of rated Capacitance change Within ±20% of initial value									7				
	voltage at 105°C with the polarity inverted every 250 hours, capacitors meet the characteristic requirements listed at right.					tan δ 200			0% or less of initial specified value					
						Leakage current Init			tial specified value or less					
Shelf Life	After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for endurance characteristics listed above.													
Resistance to soldering	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored									Capacitance change Within ±10% of initial value				
												Initial specified value or less		
heat	at room temperature, they meet the characteristic requirements listed at right.											Initial specified value or less		
Marking	Black print on the o	case top.												

### Chip Type



### Type numbering system (Example : 16V $10 \mu F)$



• The lead-free product is also available upon request. In this case, L will be put at 11th digit of type numbering system.

#### Dimensions

% Voltage mark for 6.3V is [6V]

	V	6.3		10		16		25		35		50	
Cap.(µF)	Code	0	J	1A		1C		1E		1V		1H	
0.1	0R1											4	1.0
0.22	R22		1						1			4	2.0
0.33	R33											4	2.8
0.47	R47		1						1			4	4.0
1	010											4	8.4
2.2	2R2		 						1	4	8.4	5	13
3.3	3R3							5	12	5	16	5	17
4.7	4R7					4	12	5	16	5	18	6.3	20
10	100			4	17	5	23	6.3	27	6.3	29		
22	220	5	28	6.3	33	6.3	37						
33	330	6.3	37	6.3	41	6.3	49						Rated
47	470	6.3	45									Case size ¢ D (mm)	ripple

Rated Ripple (mA rms) at 105°C 120Hz

### • Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz~
Coefficient	0.70	1.00	1.17	1.36	1.50

• Taping specifications are given in page 22.

• Recommended land size are given in page 23

• Please refer to page 3 for the minimum order quantity.



## nichicon