

CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS



UUL Series

- Super low ESR at a high frequency ranged
- Low profile 6.3×6 max, 8×7 max
- 2,000 hours at 105°C



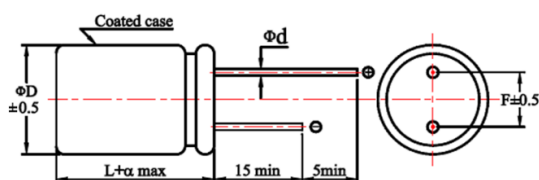
◆ SPECIFICATIONS

Item	Performance Characteristics								
Category Temperature Range	-55 ~ +105°C								
Working Voltage Range	2.5 ~ 16Vdc								
Surge Voltage	Rated Voltage × 1.15								
Capacitance Tolerance	M: ±20% (at 25°C and 120Hz)								
ESR	See the standard ratings table (at 25°C, 100~300KHz)								
Dissipation Factor (Tanδ)	See the standard ratings table (at 25°C, 120Hz)								
Leakage Current ※1	See the standard ratings table (Impress the rated voltage for 2 minutes)								
Low Temperature Characteristics Impedance Ratio	$Z(-25^{\circ}\text{C})/Z(+25^{\circ}\text{C}) \leq 1.15$ at 100KHz $Z(-55^{\circ}\text{C})/Z(+25^{\circ}\text{C}) \leq 1.25$ at 100KHz								
Endurance	The following specifications shall be satisfied when the capacitors are restored to 25°C after subjected to DC voltage for 2,000 hours at 105°C. <table border="1"> <tr> <td>Capacitance change</td><td>$\leq \pm 20\%$ of the initial value</td></tr> <tr> <td>ESR</td><td>$\leq 150\%$ of the specified value</td></tr> <tr> <td>Dissipation factor(tanδ)</td><td>$\leq 150\%$ of the specified value</td></tr> <tr> <td>Leakage current</td><td>$\leq$ specified value</td></tr> </table>	Capacitance change	$\leq \pm 20\%$ of the initial value	ESR	$\leq 150\%$ of the specified value	Dissipation factor(tanδ)	$\leq 150\%$ of the specified value	Leakage current	$\leq$ specified value
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ESR	$\leq 150\%$ of the specified value								
Dissipation factor(tanδ)	$\leq 150\%$ of the specified value								
Leakage current	$\leq$ specified value								
Damp Heat (Steady State)	The following requirements shall be satisfied when the capacitor are restored to 25°C after exposing them for 1,000 hours at 60°C 90 to 95% RH. <table border="1"> <tr> <td>Capacitance change</td><td>$\leq \pm 20\%$ of the initial value</td></tr> <tr> <td>ESR</td><td>$\leq 150\%$ of the specified value</td></tr> <tr> <td>Dissipation factor(tanδ)</td><td>$\leq 150\%$ of the specified value</td></tr> <tr> <td>Leakage current</td><td>$\leq$ specified value</td></tr> </table>	Capacitance change	$\leq \pm 20\%$ of the initial value	ESR	$\leq 150\%$ of the specified value	Dissipation factor(tanδ)	$\leq 150\%$ of the specified value	Leakage current	$\leq$ specified value
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ESR	$\leq 150\%$ of the specified value								
Dissipation factor(tanδ)	$\leq 150\%$ of the specified value								
Leakage current	$\leq$ specified value								
Others	Conforms to JIS-C-5101-26 (2012)								

※1 In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 105°C.

※2 ESR should be measured at both of the terminal ends closest to the capacitor body.

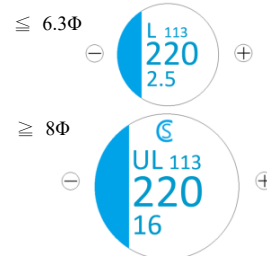
◆ DIMENSIONS (mm)



◆ LEAD

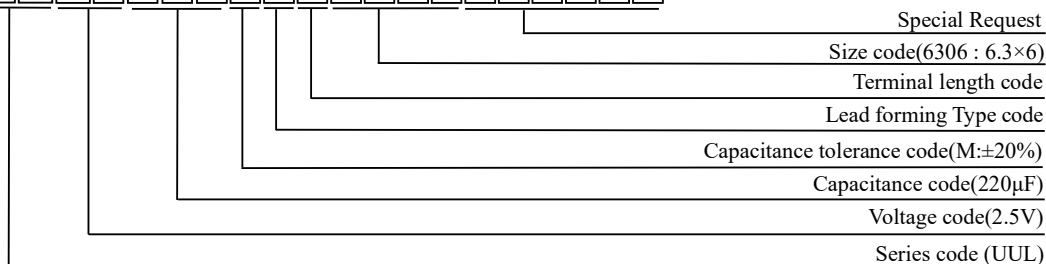
ΦD	6.3	8
Φd	0.45	0.6
L	6	7
α	0	0
F	2.5	3.5

◆ MARKING



◆ PART NUMBER SYSTEM (Example : 2.5V 220μF)

U U L 0 E 2 2 1 M N N 6 3 0 6



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◆ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case Size (mm) ΦD×L	ESR 100~300KHz (mΩmax)	Rated Ripple current (mA _{rms} /105°C, 100KHz)	Tanδ max	Leakage Current (μA max)	Part Number
2.5 (0E)	220	6.3×6	8	3400	0.10	500	UUL0E221MNN6306
	390	6.3×6	8	3900	0.10	500	UUL0E391MNN6306
	560	6.3×6	8	3900	0.10	500	UUL0E561MNN6306
	680	6.3×6	8	4500	0.10	500	UUL0E681MNN6306
6.3 (0J)	220	6.3×6	17	3000	0.10	500	UUL0J221MNN6306
	330	6.3×6	17	3300	0.10	500	UUL0J331MNN6306
16 (1C)	100	6.3×6	24	2490	0.10	500	UUL1C101MNN6306
	150	6.3×6	22	3220	0.10	500	UUL1C151MNN6306
	180	6.3×6	22	3300	0.10	576	UUL1C181MNN6306
	220	8×7	13	4150	0.10	704	UUL1C221MNN0807
	270	8×7	12	4300	0.10	864	UUL1C271MNN0807
	330	8×7	12	4300	0.10	1056	UUL1C331MNN0807
	390	8×7	12	4300	0.10	1248	UUL1C391MNN0807
	470	8×7	13	4700	0.10	1504	UUL1C471MNN0807