



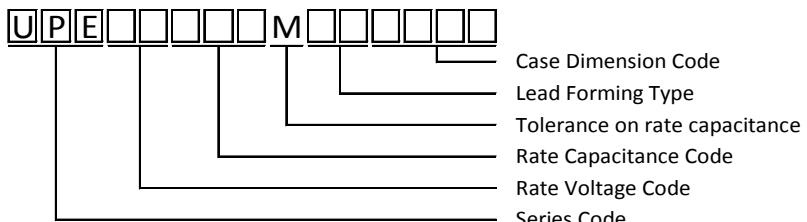
# UP-E series

\* Super Low ESR and Long Life 5,000hrs \*

## ◆ Feature

- Super Low ESR at a high frequency range.
- High Ripple Current capability.
- 5,000 hours at 105°C.
- Green Design. (RoHS)

## ◆ Part Number System

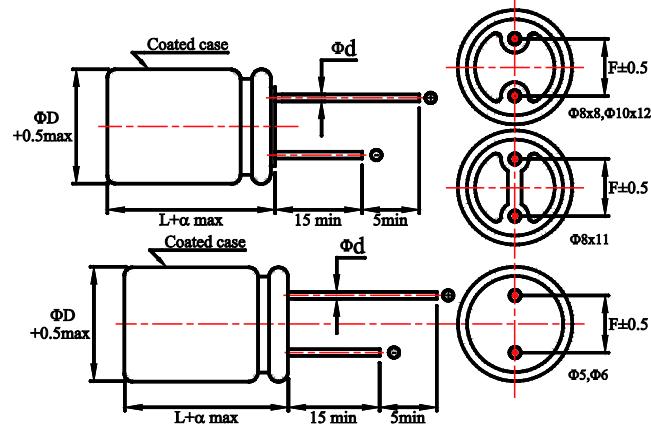


## ◆ Specification

Items	Condition	Characteristics	
Category Temperature Range	-	-55 to +105°C	
Rated Voltage Range	-	2.5 to 35 Vdc	
Surge Voltage	-	Rated Voltage x1.15	
Capacitance Tolerance	At 120Hz, 20°C	$\pm 20\%$ (M)	
ESR	At 100~300KHz, 20°C	See the standard ratings table	
Tanδ of loss angle	At 120Hz, 20°C	See the standard ratings table	
Leakage Current※1	After 2 minutes	See the standard ratings table	
Low Temperature Characteristics	Impedance ratio	$Z-25\text{ }^{\circ}\text{C} / Z+20\text{ }^{\circ}\text{C} \leq 1.15$ at 100KHz	
		$Z-55\text{ }^{\circ}\text{C} / Z+20\text{ }^{\circ}\text{C} \leq 1.25$ at 100KHz	
Endurance	105°C 5,000 hrs. Rated voltage applied	Capacitance change	$\leq \pm 20\%$ of the initial measured value
		ESR	$\leq 150\%$ of the specified value
		Tanδ	$\leq 150\%$ of the specified value
		Leakage current	The initial specified value
Damp Heat (Steady state)	60°C, 90 to 95% R.H., 1,000 hrs.	Capacitance change	$\leq \pm 20\%$ of the initial measured value
		ESR	$\leq 150\%$ of the specified value
		Tanδ	$\leq 150\%$ of the specified value
		Leakage current	The initial specified value
		Leakage current should be tested after treatment	

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

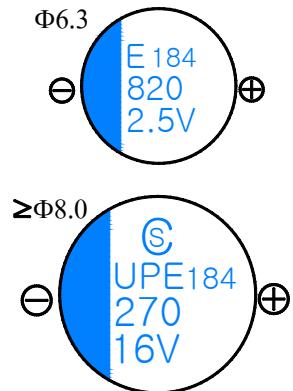
## ◆ Dimension



## ◆ Lead

ΦD	5	6.3	6.3	8	8	10
Φd	0.45			0.6		
L	8	5	8	6~8	11	12
α	1	1	1	1	1.5	1.5
F	2.0	2.5		3.5		5

## ◆ Marking



### ◆ Standard Ratings

Rated Voltage (Vdc)	Rated Capacitance ( $\mu\text{F}$ )	Case Size $\phi\text{D} \times \text{L}$ (mm)	ESR 100~300KHz (m $\Omega$ max)	Rated Ripple Current 105°C, 100KHz (mArms max)	Tan $\delta$ max	Leakage Current ( $\mu\text{A}$ max)	Part Number
2.5(0E)	390	6.3×5	10	3,900	0.10	500	UPE0E391MNN6305
	560	5×8	7	4,200	0.10	500	UPE0E561MNN0508
	560	6.3×8	7	5,000	0.10	500	UPE0E561MNN6308
	560	8×8	8	4,700	0.10	500	UPE0E561MNN0808
	820	6.3×8	7	5,000	0.10	500	UPE0E821MNN6308
	820	8×8	7	6,100	0.10	500	UPE0E821MNN0808
	1,000	8×8	7	6,100	0.10	900	UPE0E102MNN0808
4(0G)	560	6.3×8	7	5,000	0.10	500	UPE0G561MNN6308
	560	8×8	7	6,100	0.10	500	UPE0G561MNN0808
6.3(0J)	100	6.3×8	35	2,100	0.10	500	UPE0J101MNN6308
	330	5×8	8	4,050	0.10	500	UPE0J331MNN0508
	470	6.3×8	8	4,700	0.10	592	UPE0J471MNN6308
	560	8×8	7	6,100	0.10	706	UPE0J561MNN0808
	820	6.3×8	8	4,700	0.10	1033	UPE0J821MNN6308
	820	8×8	8	6,100	0.10	1033	UPE0J821MNN0808
16(1C)	100	6.3×5	24	2,400	0.10	500	UPE1C101MNN6305
	100	6.3×8	24	2,490	0.10	500	UPE1C101MNN6308
	180	6.3×5	22	3,300	0.10	576	UPE1C181MNN6305
	180	8×8	10	5,000	0.10	576	UPE1C181MNN0808
	180	8×11	16	4,360	0.10	576	UPE1C181MNN0811
	220	8×6	13	4,150	0.10	500	UPE1C221MNN0806
	270	6.3×8	15	3,800	0.10	864	UPE1C271MNN6308
	270	8×8	10	5,000	0.10	864	UPE1C271MNN0808
	270	8×11	11	5,000	0.10	864	UPE1C271MNN0811
	330	8×8	11	4,700	0.10	1,056	UPE1C331MNN0808
	470	8×8	16	4,000	0.10	1,504	UPE1C471MNN0808
	470	8×11	11	5,400	0.10	1,504	UPE1C471MNN0811
	470	10×12	10	6,100	0.10	1,504	UPE1C471MNN1012
	560	8×11	14	4,970	0.10	1,792	UPE1C561MNN0811
	820	10×12	12	5,400	0.10	2,624	UPE1C821MNN1012
	1,000	10×12	12	5,400	0.10	3,200	UPE1C102MNN1012
25(1E)	56	6.3×5	30	2,800	0.10	300	UPE1E560MNN6305
	82	8×8	28	3,000	0.10	410	UPE1E820MNN0808
	180	8×11	16	4,650	0.10	900	UPE1E181MNN0811
	330	10×12	14	5,000	0.10	1,650	UPE1E331MNN1012
35(1V)	22	6.3×5	35	2,600	0.10	300	UPE1V220MNN6305
	33	8×8	30	2,800	0.10	300	UPE1V330MNN0808
	82	8×11	20	4,000	0.10	574	UPE1V820MNN0811
	120	10×12	18	4,400	0.10	840	UPE1V121MNN1012