ORC Series

Features

- 105℃, 15,000 hours assured
- Ultra low ESR with large permissible ripple current
- RoHS Compliance

Marking color: Blue

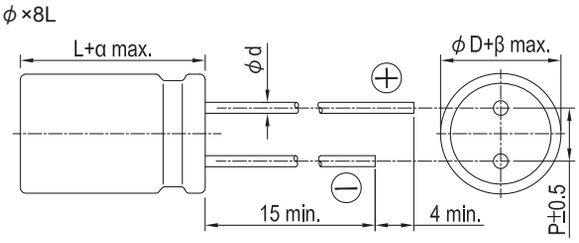
Specifications

Items	Performance
Category Temperature Range	-55℃ ~ +105℃
Capacitance Tolerance	±20% (at 120Hz, 20℃)
Leakage Current (at 20℃)*	Rated voltage applied, after 2 minutes at 20℃. See Standard Ratings
Tanδ (at120Hz, 20℃)	See Standard Ratings
ESR (at 100k ~ 300k Hz, 20℃)	See Standard Ratings
Endurance	Test Time: 15,000 Hrs; Capacitance Change: Within ±20% of initial value; Tanδ: Less than 150% of specified value; ESR: Less than 150% of specified value; Leakage Current: Within specified value. * The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied for 15,000 hours at 105℃.
Moisture Resistance	Test Time: 1,000 Hrs; Capacitance Change: Within ±20% of initial value; Tanδ: Less than 150% of specified value; ESR: Less than 150% of specified value; Leakage Current: Within specified value. * The above specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them at 60℃, 90 to 95% RH for 1,000 hours. Leakage current should be tested after voltage treatment*.
Resistance to Soldering Heat * (Please refer to page 11 for soldering conditions)	Capacitance Change: Within ±10% of initial value; Tanδ: Less than 130% of specified value; ESR: Less than 130% of specified value; Leakage Current: Within specified value
Ripple Current and Frequency Multipliers	Frequency (Hz): 120 ≦ f < 1k / 1k ≦ f < 10k / 10k ≦ f < 100k / 100k ≦ f < 500k; Multiplier: 0.05 / 0.3 / 0.7 / 1.0

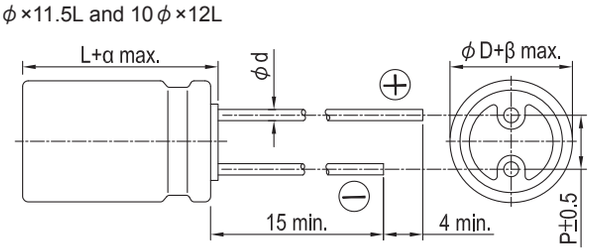
* For any doubt about measured values, measure the leakage current again after the following voltage treatment.
Voltage treatment: DC rated voltage is applied to the capacitors for 2 hours at 105℃.

Diagram of Dimensions

8φ×8L



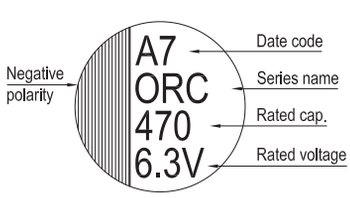
8φ×11.5L and 10φ×12L



Lead Spacing and Diameter Unit: mm

φD	8	8	10
L	8	11.5	12
P	3.5		5.0
φd	0.6		
α	1.0		
β	0.5		

Marking



Dimension: ϕD×L(mm)
Ripple Current: mA/rms at 100k Hz

Standard Ratings

Rated Volt. (V)	Surge Voltage (V)	Capacitance (μF)	Size ϕD×L(mm)	Tanδ (120Hz, 20℃)	L C (μA)	E S R (mΩ/at 100k ~ 300k Hz, 20℃ max.)	Rated R. C. (mA/rms at 100k Hz, 105℃)
2.5V (0E)	2.9	560	8 × 8	0.10	500	7	6,100
		820	8 × 8	0.10	500	7	6,100
		1,000	8 × 8	0.10	500	7	6,100
			8 × 11.5	0.10	500	7	6,100
		1,500	8 × 11.5	0.10	750	7	6,100
		2,700	10 × 12	0.10	1,350	8	5,560
4V (0G)	4.6	560	8 × 8	0.10	448	7	6,100
		680	8 × 11.5	0.10	544	7	6,100
		1,000	10 × 12	0.10	800	6	6,640
6.3V(0J)	7.2	470	8 × 8	0.10	592	8	5,700
		560	8 × 8	0.10	706	8	5,700
		820	10 × 12	0.10	1,033	7	6,640
		1,500	10 × 12	0.10	1,890	10	5,560
10V (1A)	12.0	390	8 × 11.5	0.10	780	9	5,650
		680	10 × 12	0.10	1,360	7	6,100
16V (1C)	18.0	270	8 × 11.5	0.12	864	11	5,080
		330	10 × 12	0.10	1,056	10	6,100
		470	10 × 12	0.10	1,504	10	6,100

Part Numbering System

ORC Series	470μF	±20%	6.3V	Bulk Package	Gas Type	8ϕ×11.5L	Pb-free and PET coating case
ORC	**471**	**M**	**0J**	**BK**	**-**	**0811**	
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Lead Configuration & Package	Rubber Type	Case size	Lead Wire and Coating Type

Note: For more details, please refer to “Part Numbering System (Radial Type)” on page 13.