ORC Series

Features

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

Marking color: Blue

Specifications

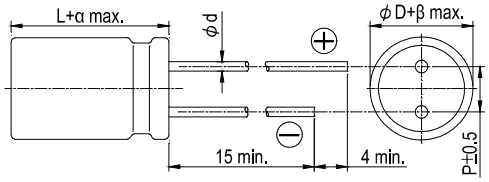
Items	Performance
Category Temperature Range	-55℃ ~ +105℃
Capacitance Tolerance	±20% (at 120 Hz, 20℃)
Leakage Current (at 20℃)*	Rated voltage applied, after 2 minutes at 20℃. See Standard Ratings
Tanδ (at120 Hz, 20℃)	See Standard Ratings
ESR (at 100k ~ 300k Hz, 20℃)	See Standard Ratings
Endurance	Test 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 ~ 95% RH for 1,000 hours. Leakage current should be tested after voltage treatment*.
Resistance to Soldering Heat * (Please refer to page 18 for soldering conditions)	Capacitance Change: Within ±10% of initial value Tanδ: Within specified value ESR: Within 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

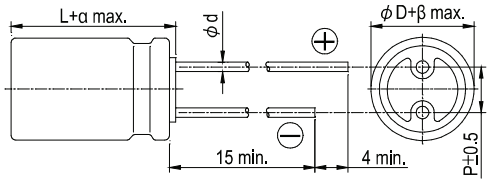
* For any doubt about measured values, measure the leakage current again after the following voltage treatment.
Voltage treatment: DC rated voltage is applied to the capacitors for 2 hours at 105℃.

Diagram of Dimensions

8φ×8L



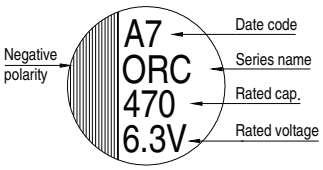
8φ×11.5L and 10φ×12L



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



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Dimension: ϕD×L(mm)

Standard Ratings

Ripple Current: mA/rms at 100k Hz, 105℃

Rated Volt. (V)	Surge Voltage (V)	Capacitance (μF)	Size ϕD×L (mm)	Tanδ (120 Hz, 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					
		1,000	8 × 11.5				
		1,500	8 × 11.5		750		
		2,700	10 × 12		1,350	8	5,560
4V (0G)	4.6	560	8 × 8	0.10	448	7	6,100
		680	8 × 11.5		544	7	6,100
		1,000	10 × 12		800	6	6,640
6.3V(0J)	7.2	470	8 × 8	0.10	592	8	5,700
		560	8 × 8		706	8	5,700
		820	10 × 12		1,033	7	6,640
		1,500	10 × 12		1,890	10	5,560
10V (1A)	12.0	390	8 × 11.5	0.10	780	9	5,650
		680	10 × 12		1,360	7	6,100
16V (1C)	18.0	270	8 × 11.5	0.10	864	11	5,080
		330	10 × 12		1,056	10	6,100
		470	10 × 12		1,504	10	6,100

Part Numbering System

ORC Series	470μF	±20%	6.3V	Bulk Package	Gas Type	8ϕ×8L	
ORC	**471**	**M**	**0J**	**BK**	**-**	**0808**	**XX**
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Lead Configuration and Package	Rubber Type	Case Size	

S = Standard
KS = AEC-Q200 Qualified, Safety Critical Application
LS = AEC-Q200 Qualified, Non-Safety Critical Application

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