

ORC Series

Features

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



Marking color: Blue

Specifications

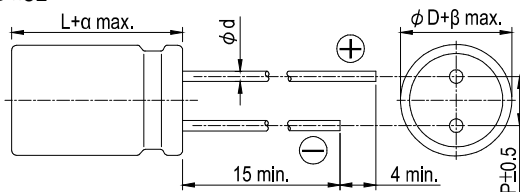
Items	Performance				
Category Temperature Range	-55℃ ~ +105℃				
Capacitance Tolerance	±20% (at 120 Hz, 20℃)				
Leakage Current (at 20℃)*	Rated voltage applied, after 2 minutes at 20℃. See Standard Ratings				
Tanδ (at120 Hz, 20℃)	See Standard Ratings				
ESR (at 100k ~ 300k Hz, 20℃)	See Standard Ratings				
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 11 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°C.

Diagram of Dimensions

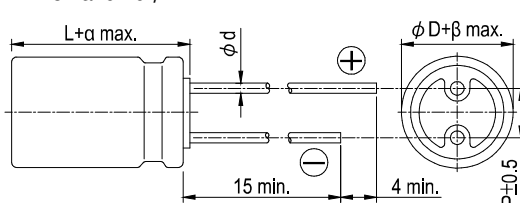
8φ × 8L



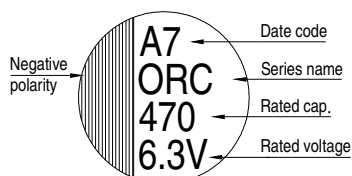
Lead Spacing and Diameter Unit: mm

φ D	8	8	10
L	8	11.5	12
P	3.5		5.0
φ d	0.6		
α	1.0		
β	0.5		

8φ × 11.5L and 10φ × 12L



Marking



Dimension: $\phi D \times L$ (mm)

Ripple Current: mA/rms at 100k Hz

Standard Ratings

Rated Volt. (V)	Surge Voltage (V)	Capacitance (μ F)	Size $\phi D \times L$ (mm)	Tan δ (120 Hz, 20°C)	L C (μ A)	E S R (m Ω /at 100k ~ 300k Hz, 20°C max.)	Rated R. C. (mA/rms at 100k Hz, 105°C)
2.5V (0E)	2.9	560	8 $\times$ 8	0.10	500	7	6,100
		820					
		1,000	8 $\times$ 11.5		750	8	5,560
		1,500	8 $\times$ 11.5				
		2,700	10 $\times$ 12				
4V (0G)	4.6	560	8 $\times$ 8	0.10	448	7	6,100
		680	8 $\times$ 11.5		544	7	6,100
		1,000	10 $\times$ 12		800	6	6,640
6.3V(0J)	7.2	470	8 $\times$ 8	0.10	592	8	5,700
		560	8 $\times$ 8		706	8	5,700
		820	10 $\times$ 12		1,033	7	6,640
		1,500	10 $\times$ 12		1,890	10	5,560
10V (1A)	12.0	390	8 $\times$ 11.5	0.10	780	9	5,650
		680	10 $\times$ 12		1,360	7	6,100
16V (1C)	18.0	270	8 $\times$ 11.5	0.10	864	11	5,080
		330	10 $\times$ 12		1,056	10	6,100
		470	10 $\times$ 12		1,504	10	6,100

Part Numbering System

ORC Series	470 μ F	$\pm$ 20%	6.3V	Bulk Package	Gas Type	8 ϕ $\times$ 8L	Pb-free and Coated Case
ORC	471	M	0J	BK	-	0808	
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Lead Configuration and Package	Rubber Type	Case Size	Lead Wire and Case Type

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

Mouser Electronics

Authorized Distributor

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