ORF Series

Features

- 105℃, 20,000 hours assured
- Ultra low ESR with large permissible ripple current
- RoHS compliance

Marking color: Blue

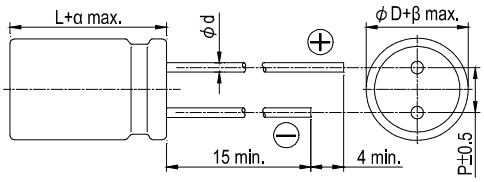
Specifications

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: 20,000 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 20,000 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

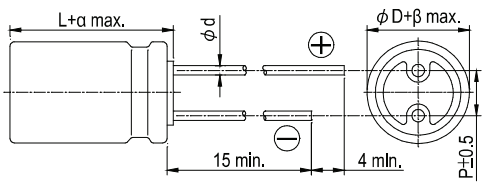
* For any doubt about measured values, measure the leakage current again after the following voltage treatment.
Voltage treatment: DC rated voltage is applied to the capacitors for 2 hours at 105℃.

Diagram of Dimensions

6.3φ and 8φ×8L



8φ×11.5L and 10φ×12L



Lead Spacing and Diameter — Unit: mm

φD	6.3			8		10
L	5.5	8	11	8	11.5	12
P	2.5			3.5		5.0
φd	0.45	0.6	0.5	0.6		
α	0.5	1.0				
β	0.5					

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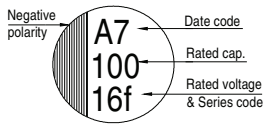
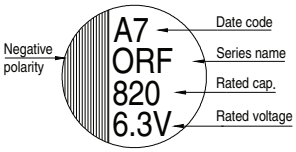
ϕD = 6.3



ϕD = 8 ~ 10



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℃)
2V (0D)	2.3	1,000	6.3 × 8	0.12	500	5	5,900
2.5V(0E)	2.9	330	6.3 × 8	0.10	500	5	5,900
		470					
		560					
		820					
		1,200		0.12	1,200		
		1,600	8 × 8	0.12	800		6,100
4V(0G)	4.6	470	6.3 × 8	0.10	500	7	5,600
		560	6.3 × 8	0.10	500	7	5,600
6.3V(0J)	7.2	820	6.3 × 8	0.10	1,030	8	4,700
16V (1C)	18.0	100	6.3 × 5.5	0.10	500	24	2,490
			6.3 × 11		500	25	2,890
		270	8 × 8		864	10	5,000
			8 × 11.5		864	11	5,080
		330	8 × 8		1,050	13	4,700
		470	8 × 11.5		1,500	11	5,400
			10 × 12		1,500	10	6,100

Part Numbering System

ORF Series	270μF	±20%	16V	Bulk Package	Gas Type	8ϕ×11.5L	
ORF	**271**	**M**	**1C**	**BK**	**-**	**0811**	**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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