

ORG Series

Features

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



Marking color: Blue

Specifications

Items	Performance										
Category Temperature Range	-55°C ~ +105°C										
Capacitance Tolerance	±20% (at 120 Hz, 20°C)										
Leakage Current (at 20°C)*	Rated voltage applied, after 2 minutes at 20°C. See Standard Ratings										
Tanδ (at 120 Hz, 20°C)	See Standard Ratings										
ESR (at 100k ~ 300k Hz, 20°C)	See Standard Ratings										
Endurance	<table border="1"> <tr> <td>Test Time</td> <td>16V: 20,000 Hrs 20 ~ 35V: 15,000 Hrs</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Tanδ</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table>	Test Time	16V: 20,000 Hrs 20 ~ 35V: 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
	Test Time	16V: 20,000 Hrs 20 ~ 35V: 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°C after the rated voltage applied for 20,000 / 15,000 hours at 105°C.											
Moisture Resistance	<table border="1"> <tr> <td>Test Time</td> <td>1,000 Hrs</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Tanδ</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table>	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
	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°C after subjecting them at 60°C, 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)	<table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±10% of initial value</td> </tr> <tr> <td>Tanδ</td> <td>Within specified value</td> </tr> <tr> <td>ESR</td> <td>Within specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table>	Capacitance Change	Within ±10% of initial value	Tanδ	Within specified value	ESR	Within specified value	Leakage Current	Within specified value		
	Capacitance Change	Within ±10% of initial value									
	Tanδ	Within specified value									
	ESR	Within specified value									
Leakage Current	Within specified value										
* 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.											
Ripple Current and Frequency Multipliers	<table border="1"> <tr> <th>Frequency (Hz)</th> <th>120 ≤ f < 1k</th> <th>1k ≤ f < 10k</th> <th>10k ≤ f < 100k</th> <th>100k ≤ f < 500k</th> </tr> <tr> <td>Multiplier</td> <td>0.05</td> <td>0.3</td> <td>0.7</td> <td>1.0</td> </tr> </table>	Frequency (Hz)	120 ≤ f < 1k	1k ≤ f < 10k	10k ≤ f < 100k	100k ≤ f < 500k	Multiplier	0.05	0.3	0.7	1.0
	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

Fig. 1

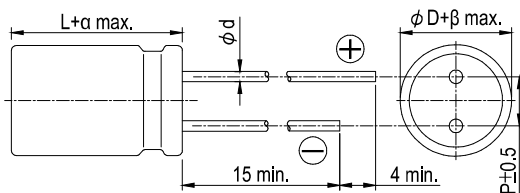
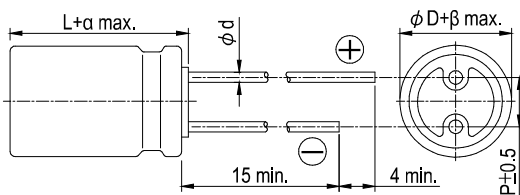


Fig. 2

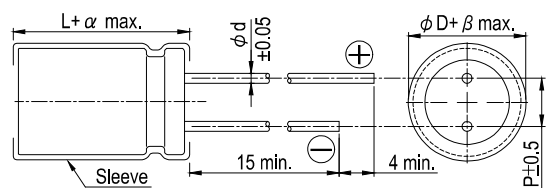


Lead Spacing and Diameter

Unit: mm

φ D	6.3		8				10			
	L	5.5	8	8	6.5	11.5	16	20	12	16
P	2.5		3.5				5.0			
φ d	0.45		0.6							
α	0.5	1.0	1.0	0.5	1.0	1.5	2.0	1.0	1.5	2.0
β	0.5									
Fig. No.	1		2		3		2		3	

Fig. 3

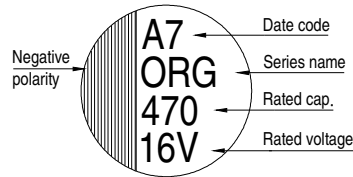
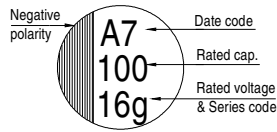


Sleeve & Marking Color: Sapphire Blue & Golden

Marking

$\phi D = 6.3$

$\phi D = 8 \sim 10$



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)					
16V (1C)	18.0	100	6.3 \times 5.5	0.12	480	20	2,490					
		150	6.3 \times 5.5		480	20	3,200					
		270	6.3 \times 8		864	10	5,080					
			8 \times 6.5		864	22	3,300					
		470	8 \times 8		1,504	16	4,000					
		560	8 \times 11.5		1,792	14	4,970					
		820	8 \times 16		2,624	8	7,000					
			10 \times 12		2,624	12	5,400					
			8 \times 16		3,200	8	7,000					
		8 \times 20	8			7,500						
		10 \times 12	12			5,400						
		1,200	8 \times 20		3,840	8	7,500					
								1,500	10 \times 16	4,800	4,800	7,700
2,200	10 \times 20			7,040				8,100				
20V (1D)	23.0			120				6.3 \times 5.5	0.12	480	20	3,200
				180				6.3 \times 8		720	18	3,460
		330	8 \times 8	1,320	17	3,880						
		390	8 \times 11.5	1,560	14	4,970						
		680	10 \times 12	2,720	12	5,400						
25V (1E)	29.0	56	6.3 \times 5.5	0.12	280	30	2,600					
		82	6.3 \times 8		410	28	2,780					
		100			500							
		120			600							
		180	8 \times 8		900	18	3,770					
			8 \times 11.5		900	16	4,650					
		220	8 \times 11.5		1,100	16	4,650					
		330	10 \times 12		1,650	14	5,000					
		390	10 \times 12		1,950	14	5,000					
		35V(1V)	40.0		68	8 \times 11.5	0.12	476	18	4,380		
120	10 \times 12			0.12	840	16	4,670					

Part Numbering System

ORG Series 560 μ F $\pm 20\%$ 16V Bulk Package Gas Type 8 $\phi \times 11.5L$ Pb-free and PET coating case
ORG **561** **M** **1C** **BK** - **0811**
 Series Name Capacitance Capacitance Tolerance Rated Voltage Lead Configuration and 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.