

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 120Hz, 20°C)										
Leakage Current (at 20°C)*	Rated voltage applied, after 2 minutes at 20°C. See Standard Ratings										
Tanδ (at 120Hz, 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									
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	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
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	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 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)	<table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±10% of initial value</td> </tr> <tr> <td>Tanδ</td> <td>Less than 130% of specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 130% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table>	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		
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	Tanδ	Less than 130% of specified value									
	ESR	Less than 130% of 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
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Diagram of Dimensions

Fig. 1

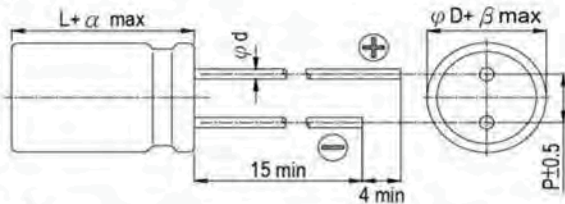
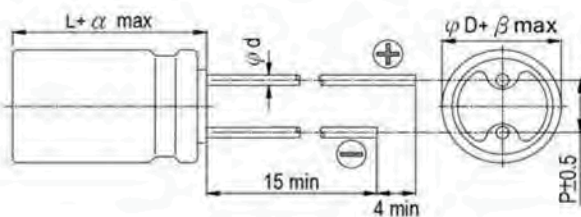


Fig. 2



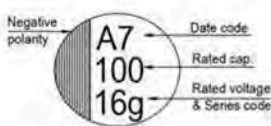
Lead Spacing and Diameter

Unit: mm

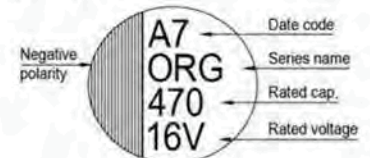
φD	6.3			8				10		
L	5.5	8	8	6.5	11.5	16	20	12	16	20
P	2.5		3.5				5.0			
φd	0.45		0.6							
α	0.5	1.0	1.0	0.5	1.0	1.5	2.0	1.0	1.5	2.0
β	0.5									
Fig. No.	1	1	1	1	2	1	1	2	1	1

Marking

φD = 5 ~ 6.3



φD = 8 ~ 10



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

Standard Ratings

W. V. (V)	Surge Voltage (V)	Capacitance (μF)	Size ϕ D×L(mm)	Tanδ (120Hz, 20°C)	L C (μA)	E S R (mΩ/at 100k - 300k Hz, 20°C Max)	Rated R. C. (mA/rms at 100k Hz, 105°C)
16V (1C)	18.0	100	6.3 × 5.5	0.12	480	20	2,490
		270	6.3 × 8	0.12	864	10	5,080
			8 × 6.5	0.12	864	22	3,300
		470	8 × 8	0.12	1,504	16	4,000
		560	8 × 11.5	0.12	1,792	14	4,970
		820	8 × 16	0.12	2,624	8	7,000
			10 × 12	0.12	2,624	12	5,400
		1,000	8 × 20	0.12	3,200	8	7,500
			10 × 12	0.12	3,200	12	5,400
1,200	10 × 16	0.12	3,840	8	7,700		
1,800	10 × 20	0.12	5,760	8	8,100		
20V (1D)	23.0	120	6.3 × 5.5	0.12	480	20	3,200
		180	6.3 × 8	0.12	720	18	3,460
		330	8 × 8	0.12	1,320	17	3,880
		390	8 × 11.5	0.12	1,560	14	4,970
		680	10 × 12	0.12	2,720	12	5,400
25V (1E)	29.0	56	6.3 × 5.5	0.12	280	30	2,600
		82	6.3 × 8	0.12	410	28	2,780
		180	8 × 8	0.12	900	18	3,770
			8 × 11.5	0.12	900	16	4,650
		220	8 × 11.5	0.12	1,100	16	4,650
		330	10 × 12	0.12	1,650	14	5,000
		390	10 × 12	0.12	1,950	14	5,000
35V(1V)	40.0	68	8 × 11.5	0.12	476	18	4,380
		120	10 × 12	0.12	840	16	4,670

Part Numbering System

ORG Series	560μF	±20%	16V	Bulk Package	Gas Type	8 ϕ × 11.5L	Pb-free and PET coating case
ORG	561	M	1C	BK	-	0811	S
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)".							