

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 (at120 Hz, 20°C)	See Standard Ratings																							
ESR (at 100k ~ 300k Hz, 20°C)	See Standard Ratings																							
Endurance	<table><tr><td>Test Time</td><td colspan="3">16V: 20,000 Hrs 20 ~ 35V: 15,000 Hrs</td></tr><tr><td>Capacitance Change</td><td colspan="3">Within ±20% of initial value</td></tr><tr><td>Tanδ</td><td colspan="3">Less than 150% of specified value</td></tr><tr><td>ESR</td><td colspan="3">Less than 150% of specified value</td></tr><tr><td>Leakage Current</td><td colspan="3">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		
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	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><tr><td>Test Time</td><td colspan="3">1,000 Hrs</td></tr><tr><td>Capacitance Change</td><td colspan="3">Within ±20% of initial value</td></tr><tr><td>Tanδ</td><td colspan="3">Less than 150% of specified value</td></tr><tr><td>ESR</td><td colspan="3">Less than 150% of specified value</td></tr><tr><td>Leakage Current</td><td colspan="3">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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	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><tr><td>Capacitance Change</td><td colspan="3">Within ±10% of initial value</td></tr><tr><td>Tanδ</td><td colspan="3">Within specified value</td></tr><tr><td>ESR</td><td colspan="3">Within specified value</td></tr><tr><td>Leakage Current</td><td colspan="3">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						
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Ripple Current and Frequency Multipliers	<table><tr><td>Frequency (Hz)</td><td>120 ≤ f < 1k</td><td>1k ≤ f < 10k</td><td>10k ≤ f < 100k</td><td>100k ≤ f < 500k</td></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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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

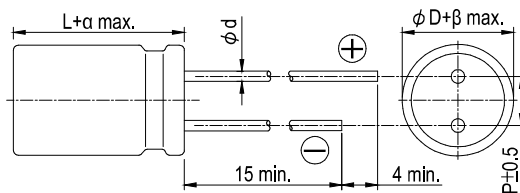
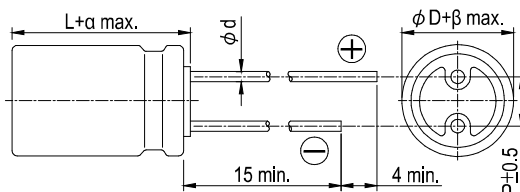


Fig. 2

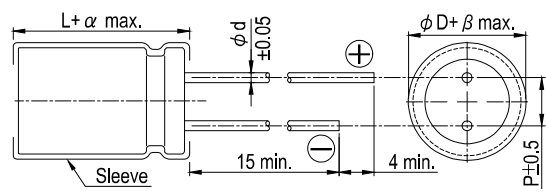


Lead Spacing and Diameter

Unit: mm

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				2	3		2	3		

Fig. 3

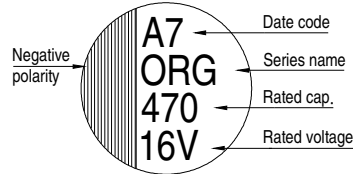
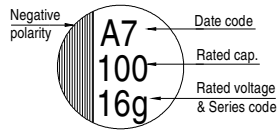


Sleeve & Marking Color: Sapphire Blue & Golden

Marking

$\phi D = 6.3$

$\phi D = 8 \sim 10$



Standard Ratings

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

Ripple Current: mA/rms at 100k Hz

Rated Volt. (V)	Surge Voltage (V)	Capacitance (μF)	Size φ D×L(mm)	Tanδ (120 Hz, 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
		150	6.3 × 5.5		480	20	3,200
		270	6.3 × 8		864	10	5,080
			8 × 6.5		864	22	3,300
		470	8 × 8		1,504	16	4,000
		560	8 × 11.5		1,792	14	4,970
		820	8 × 16		2,624	8	7,000
			10 × 12		2,624	12	5,400
		1,000	8 × 16		3,200	8	7,000
			8 × 20			8	7,500
			10 × 12			12	5,400
		1,200	8 × 20		3,840	8	7,500
			10 × 16		3,840		7,700
		1,500			4,800		
		1,800			4,800		
			10 × 20		5,760		
		2,200	10 × 20		7,040		8,100
20V (1D)	23.0	120	6.3 × 5.5	0.12	480	20	3,200
		180	6.3 × 8		720	18	3,460
		330	8 × 8		1,320	17	3,880
		390	8 × 11.5		1,560	14	4,970
		680	10 × 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		410	28	2,780
		100			500		
		120			600		
		180	8 × 8		900	18	3,770
			8 × 11.5		900	16	4,650
		220	8 × 11.5		1,100	16	4,650
		330	10 × 12		1,650	14	5,000
		390	10 × 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	560 μ F	$\pm 20\%$	16V	Bulk Package	Gas Type	8 ϕ $\times$ 11.5L	Pb-free and Coated 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 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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ORG820M1EBKF0608	ORG821M1CBK-0816	ORG821M1CBK-1012	ORG391M1EBK-1012	ORG471M1CBKF0808
ORG560M1EBK-0605	ORG561M1CBK-0811	ORG680M1VBK-0811	ORG681M1DBK-1012	ORG221M1EBK-0811
ORG271M1CBK-0807	ORG271M1CBKF0608	ORG331M1DBKF0808	ORG331M1EBK-1012	ORG391M1DBK-0811
ORG121M1VBK-1012	ORG122M1CBK-1016	ORG181M1DBKF0608	ORG181M1EBK-0811	ORG181M1EBKF0808
ORG182M1CBK-1020	ORG101M1CBK-0605	ORG102M1CBK-0820	ORG102M1CBK-1012	ORG121M1DBK-0605