

ORB Series

Features

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



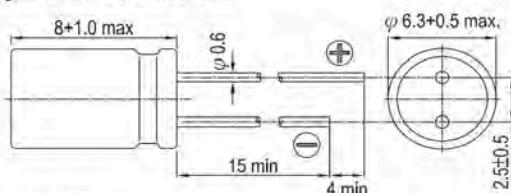
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Specifications

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	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°C after the rated voltage applied for 20,000 hours at 105°C.					
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°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)	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			
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

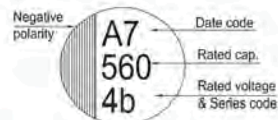
* For any doubt about measured values, measure the leakage current again after the following voltage treatment. Voltage treatment. DC rated voltage is applied to the capacitors for 2 hours at 105°C.

Diagram of Dimensions



Unit: mm

Marking



Dimension: φ D×L(mm)

Standard Ratings

Ripple Current: mA/rms at 100k Hz, 105°C

W V (V)	Surge Voltage (V)	Capacitance (μF)	Size φ D×L(mm)	Tanδ (120Hz, 20°C)	LC (μA)	ESR (mΩ/at 100k ~ 300k Hz, 20°C Max)	Rated R. C. (mA/rms at 100k Hz, 105°C)
2.5V(0E)	2.9	820	6.3 × 8	0.10	500	7	5,000
4V(0G)	4.6	560	6.3 × 8	0.10	500	7	5,000
6.3V(0J)	7.2	470	6.3 × 8	0.10	592	8	4,700
		560	6.3 × 8	0.10	706	8	4,700

Part Numbering System

ORB Series	470μF	±20%	6.3V	Bulk Package	Gas Type	6.3 φ × 8L	Pb-free and PET coating case
ORB	471	M	0J	BK	-	0608	S
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Lead Configuration & Package	Rubber Type	Case Size	Lead Wire and Coating Type Supplement Code

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

All product specifications in the catalog are subject to change without notice. (CAT. 2017E1)