

## Radial Lead Type

Series : **SEQP**

# OS-CON



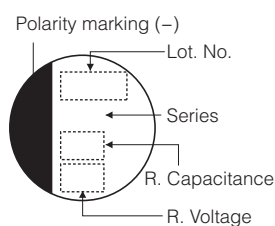
### Features

- High voltage (32 V.DC max.)
- 125 °C 1000 h
- RoHS compliance, Halogen free

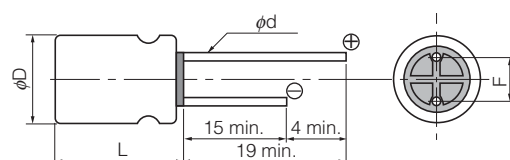
### Specifications

Size code	C6	E7	F8	E12	F13
Category temperature range	-55 °C to +125 °C				
Rated voltage range	4 V.DC to 20 V.DC	4 V.DC to 32 V.DC			4 V.DC to 20 V.DC
Rated capacitance range	22 µF to 150 µF	6.8 µF to 330 µF	15 µF to 680 µF	18 µF to 560 µF	150 µF to 1200 µF
Capacitance tolerance	±20 % (120 Hz / + 20 °C)				
Leakage current	Please see the attached characteristics list				
Dissipation factor (tan δ)	Please see the attached characteristics list				
Endurance	+125 °C, 1000 h/+105 °C, 5000 h, rated voltage applied				
	Capacitance change	Within ±20 % of the initial value			
	tan δ	≤ 200 % of the initial limit			
	DC leakage current	Within the initial limit			
Damp heat (Steady State)	+60 °C, 90 % to 95 %, 1000 h, No-applied voltage				
	Capacitance change	Within ±20 % of the initial value			
	tan δ	≤ 150 % of the initial limit			
	DC leakage current	Within the initial limit (after voltage processing)			

### Marking



### Dimensions (not to scale)



Unit : mm

Size code	φD±0.5	L max.	F±0.5	φd±0.05
C6	6.3	6.0	2.5	0.45
E7	8.0	7.0	3.5	0.45
F8	10.0	8.0	5.0	0.50
E12	8.0	12.0	3.5	0.60
F13	10.0	13.0	5.0	0.60

\* Externals of figure are the reference.

## Characteristics list

Series	Rated voltage (V.DC)	Rated capacitance (μF)	Case size (mm)		Size code	Specifications					Part number
			φD	L		Ripple* <sup>1</sup> current (mAr.m.s.)	Allowable* <sup>1</sup> ripple current (mAr.m.s.)	ESR* <sup>2</sup> (mΩ max.)	tan δ* <sup>3</sup>	LC* <sup>4</sup> (μA)	
SEQP	4.0	150	6.3	6.0	C6	572	1810	40	0.12	300	4SEQP150M
		330	8.0	7.0	E7	810	2560	35	0.12	660	4SEQP330M
		560	8.0	12.0	E12	1430	4520	13	0.15	448	4SEQP560M
		680	10.0	8.0	F8	1170	3700	25	0.12	544	4SEQP680M
		1200	10.0	13.0	F13	1721	5440	12	0.18	960	4SEQP1200M
	6.3	82	6.3	6.0	C6	537	1700	45	0.12	258	6SEQP82M
		150	8.0	7.0	E7	810	2560	35	0.12	472	6SEQP150M
		330	10.0	8.0	F8	1170	3700	25	0.12	416	6SEQP330M
		470	8.0	12.0	E12	1332	4210	15	0.15	592	6SEQP470M
		820	10.0	13.0	F13	1721	5440	12	0.15	775	6SEQP820M
	10	56	6.3	6.0	C6	537	1700	45	0.12	280	10SEQP56M
		120	8.0	7.0	E7	810	2560	35	0.12	600	10SEQP120M
		270	10.0	8.0	F8	1170	3700	25	0.12	540	10SEQP270M
		330	8.0	12.0	E12	1250	3950	17	0.15	660	10SEQP330M
		560	10.0	13.0	F13	1655	5230	13	0.15	840	10SEQP560M
	16	39	6.3	6.0	C6	512	1620	50	0.10	312	16SEQP39M
		82	8.0	7.0	E7	670	2120	40	0.12	656	16SEQP82M
		150	10.0	8.0	F8	955	3020	30	0.12	480	16SEQP150M
		180	8.0	12.0	E12	1151	3640	20	0.15	576	16SEQP180M
		330	10.0	13.0	F13	1493	4720	16	0.15	792	16SEQP330M
	20	22	6.3	6.0	C6	458	1450	60	0.10	220	20SEQP22M
		47	8.0	7.0	E7	598	1890	45	0.12	470	20SEQP47M
		68	10.0	8.0	F8	759	2400	40	0.12	272	20SEQP68M
		100	8.0	12.0	E12	1050	3320	24	0.15	400	20SEQP100M
		150	10.0	13.0	F13	1367	4320	20	0.15	600	20SEQP150M
	32	6.8	8.0	7.0	E7	440	1400	100	0.10	44	32SEQP6R8M
		15	10.0	8.0	F8	560	1800	80	0.10	96	32SEQP15M
		18	8.0	12.0	E12	790	2500	50	0.12	115	32SEQP18M

\*1 Ripple current (100 kHz/ +105 °C < T<sub>x</sub> ≤ 125 °C), Allowable ripple current (100 kHz / T<sub>x</sub> ≤ 105 °C)

\*2 ESR (100 kHz to 300 kHz/+20 °C) \*3 tan δ (120 Hz/+20 °C) \*4 After 2 minutes

◆ Please refer to each page in this catalog for "Flow conditions" and "Taping specifications".

## Frequency correction factor for ripple current

Frequency	120 Hz ≤ f < 1 kHz	1 kHz ≤ f < 10 kHz	10 kHz ≤ f < 100 kHz	100 kHz ≤ f < 500 kHz
Coefficient	0.05	0.3	0.7	1

## **Guidelines and precautions regarding the technical information and use of our products described in this online catalog.**

- If you want to use our products described in this online catalog for applications requiring special qualities or reliability, or for applications where the failure or malfunction of the products may directly jeopardize human life or potentially cause personal injury (e.g. aircraft and aerospace equipment, traffic and transportation equipment, combustion equipment, medical equipment, accident prevention, anti-crime equipment, and/or safety equipment), it is necessary to verify whether the specifications of our products fit to such applications. Please ensure that you will ask and check with our inquiry desk as to whether the specifications of our products fit to such applications use before you use our products.
- The quality and performance of our products as described in this online catalog only apply to our products when used in isolation. Therefore, please ensure you evaluate and verify our products under the specific circumstances in which our products are assembled in your own products and in which our products will actually be used.
- If you use our products in equipment that requires a high degree of reliability, regardless of the application, it is recommended that you set up protection circuits and redundancy circuits in order to ensure safety of your equipment.
- The products and product specifications described in this online catalog are subject to change for improvement without prior notice. Therefore, please be sure to request and confirm the latest product specifications which explain the specifications of our products in detail, before you finalize the design of your applications, purchase, or use our products.
- The technical information in this online catalog provides examples of our products' typical operations and application circuits. We do not guarantee the non-infringement of third party's intellectual property rights and we do not grant any license, right, or interest in our intellectual property.
- If any of our products, product specifications and/or technical information in this online catalog is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially with regard to security and export control, shall be observed.

## **<Regarding the Certificate of Compliance with the EU RoHS Directive/REACH Regulations>**

- The switchover date for compliance with the RoHS Directive/REACH Regulations varies depending on the part number or series of our products.
- When you use the inventory of our products for which it is unclear whether those products are compliant with the RoHS Directive/REACH Regulation, please select "Sales Inquiry" in the website inquiry form and contact us.

**We do not take any responsibility for the use of our products outside the scope of the specifications, descriptions, guidelines and precautions described in this online catalog.**