OS-CON SANYO

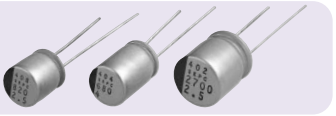
Conductive Polymer Type / Radial Lead Type

RoHS compliance

SEPC Series

Miniaturization and Low profile

Super low ESR | Large capacitance



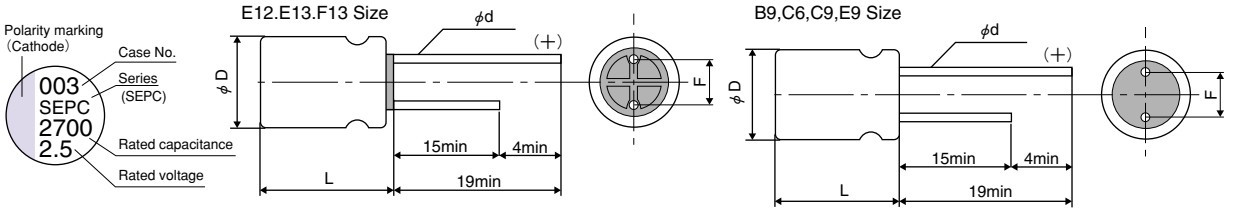
This is an even lower ESR series based on our SEP series. Suitable for use with motherboards, servers, VGA, etc. Lead free-flow is supported.

Specifications

Items	Condition		Specifications			
Rated voltage (V)	—		2.5	4.0	6.3	16
Surge voltage (V)	Room temperature		3.3	5.2	8.2	18.4
Category temperature range (℃)	—		−55 to +105			
Capacitance tolerance (%)	120Hz/20℃		M : ±20			
Dissipation Factor (DF)	120Hz/20℃		Please see the attached characteristics list			
Leakage current※1	Rated voltage applied, after 2 minutes		Please see the attached characteristics list			
Equivalent series resistance (ESR)	100kHz to 300kHz/20℃		Please see the attached characteristics list			
Characteristics of impedance ratio at high temp. and low temp.	Based the value at 100kHz, +20℃	−55℃ Z/Z20℃	0.75 to 1.25			
		+105℃ Z/Z20℃	0.75 to 1.25			
Endurance	105℃, 2,000h, Rated voltage applied	△C/C	Within ±20%			
		tan δ	1.5 times or less than an initial standard			
		ESR	1.5 times or less than an initial standard			
		LC	Below an initial standard			
Damp heat(Steady state)	60℃,90%RH, 1,000h, No-applied voltage	△C/C	Within ±20%			
		tan δ	1.5 times or less than an initial standard			
		ESR	1.5 times or less than an initial standard			
		LC	Below an initial standard (after voltage processing)			
Resistance to soldering heat	Flow method (260±5℃ X 10s)	△C/C	Within ±5%			
		tan δ	Below an initial standard			
		ESR	Below an initial standard			
		LC	Below an initial standard (after voltage processing)			

※1 In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 105°C .

Marking and dimensions



B9,C6,C9,E9 size flat rubber is used.

Size List

RV : Rated voltage

μF \ RV	2.5	4.0	6.3	16
100	B9			C6 , C9
180				E9 , E12
270				E12
330	B9 , C9			
390	C6			
470	B9		C9 , E9 , E13	F13
560	B9 , C9 , E9	C9 , E9 , E13	C9 , E9	
680		E13	F13	
820	C9 ,E9 , E13	F13		
1000	E9			
1500			F13	
2700	F13			

(unit : mm)

Size Code	φ D ±0.5	Lmax	F	φ d ±0.05
B9	5.0	9.0	2.0±0.5	0.6
C6	6.3	6.0	2.5±0.5	0.45 ※
C9	6.3	9.0	2.5±0.5	0.6
E9	8.0	9.0	3.5±0.5	0.6
E12	8.0	12.0	3.5±0.5	0.6
E13	8.0	13.0	3.5±0.5	0.6
F13	10.0	13.0	5.0±0.5	0.6

※ 2SEPC390M : 0.5±0.05

■ SEPC Series Characteristics List

Size Code	Part Number	Rated voltage (V)	Rated capacitance (μF)	ESR (mΩ) (max) 100kHz to 300kHz/20°C	Rated ripple current 100kHz (mArms) at 105°C	Tangent of loss angle (% max)	Leakage current (μA)(max) After 2 minutes
B9	2SEPC100MZ	2.5	100	7	4180	10	500
	2SEPC330MZ	2.5	330	7	4180	10	500
	2SEPC470MZ	2.5	470	7	4180	10	500
	2SEPC560MZ	2.5	560	7	4180	10	500
C6	16SEPC100M	16	100	24	2490	10	320
	2SPEC390M	2.5	390	10	3900	12	500
C9	16SEPC100MW	16	100	10	4680	10	500
	6SEPC470MW	6.3	470	8	5600	10	592
	6SEPC560MW	6.3	560	8	5600	10	705
	4SEPC560MW	4.0	560	7	5600	10	500
	2SEPC330MW	2.5	330	7	5600	10	500
	2SEPC560MW	2.5	560	7	5600	10	500
	2SPEC820MW	2.5	820	7	5600	10	500
E9	16SEPC180MX	16	180	10	5000	10	576
	6SEPC470MX	6.3	470	8	5700	10	592
	6SEPC560MX	6.3	560	7	6100	10	705
	4SEPC560MX	4.0	560	7	6100	10	500
	2SEPC560MX	2.5	560	8	4700	10	280
	2SEPC820MX	2.5	820	7	6100	10	500
	2SEPC820MY	2.5	820	5	7200	10	500
	2SEPC1000MX	2.5	1000	7	6100	10	500
E12	16SEPC180M	16	180	16	4360	10	576
	16SEPC270M	16	270	11	5000	10	864
E13	6SEPC470M	6.3	470	8	5700	10	592
	4SEPC560M	4.0	560	7	6100	10	500
	4SEPC680M	4.0	680	7	6100	10	544
	2R5SEPC820M	2.5	820	7	6100	10	500
F13	16SEPC470M	16	470	10	6100	10	1504
	6SEPC680M	6.3	680	7	6640	10	857
	6SEPC1500M	6.3	1500	10	5560	10	1890
	4SEPC820M	4.0	820	7	6640	10	656
	2SEPC2700M	2.5	2700	10	5560	10	1350

Frequency coefficient for ripple current

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